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THE CAVALRY JOURNAL



NOVEMBER-DECEMBER, 1938



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The
**CHIEF of
CAVALRY**

*Extends to the
Officers and
Enlisted Men
of the Cavalry
the Season's
Greetings, and
Best Wishes for
the New Year.*



Christmas

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Mechanized Cavalry Has Come to Stay

By Colonel H. S. Stewart, Late 15th Lancers, Indian Army

Although there are some who consider that the Tank Corps should absorb the cavalry arm, every nation is experimenting with Mechanized Cavalry. If "Mechanized Cavalry has come to stay," it must establish itself as an arm, differentiated (from the Tank Corps on the one hand and from Motorized Infantry on the other) by distinct characteristics.

Before it can be declared capable of completely taking over the duties of cavalry on horses, it must (without the support of other arms) be able to undertake responsibility for the following duties, tabulated in their approximate relative importance.

- (A) Reconnaissance.
- (B) Protection.
- (C) Pursuit.
- (D) Special Missions.
- (E) Mobile Reserve.
- (F) Participation in Battle.*
- (G) Covering a withdrawal.

When other arms are made responsible for these duties, they can carry them out in accordance with their own methods. But the justification for having mechanized cavalry, depends on its being able to develop cavalry characteristics. In fact unless it can do this, it will have nothing but its name to differentiate it from Motorized Infantry on the one hand and Tank formations on the other.

Motorized Infantry, while intended to form part of the mobile mechanized formations which include mechanized cavalry, will presumably hold a relation to the latter similar to that which Mounted Infantry held to horsed Cavalry. Tanks and similar Fighting Vehicles are the modern prototypes of war elephants and war chariots. Neither of these have any inherent capacity for cavalry duties.

If mechanized cavalry sacrifice cavalry characteristics in favor of what is termed "hitting power," it will make its final absorption by other mobile arms certain. Its only hope of remaining a separate arm, lies in being composed of units of a uniform composition, organized and trained on the cavalry model.

Has mechanized cavalry any inherent aptitude for carrying out, in any manner characteristic of cavalry, the duties that will have to be entrusted to it?

RECONNAISSANCE

Mechanized Cavalry faces great difficulties in the rôle of reconnaissance, and these will be increased instead of lessened, in proportion to its being mounted on heavy Armored Fighting Vehicles. While fast cars attached to horsed units, can often along roads execute missions impossible for troopers on horses, the assumption of complete responsibility for reconnaissance by fighting vehicles, is a very different matter. Blocking the roads may not stop Fighting Vehicles, but it will delay them; and will make them easier targets for anti-tank weapons. Vehicles if armored are difficult to see from; their speed is restricted by inequalities of the terrain, and adverse weather conditions may completely immobilize all excepting the very light ones. For various reasons, motor propelled vehicles of any sort are not really suited to reconnaissance, and all except fast inconspicuous ones, are particularly vulnerable to concealed anti-tank weapons. The improvements in these are daily making armored vehicles less formidable than they were.

Reconnaissance of any kind requires dispersion, and units composed of a restricted number of vehicles, will have practical difficulties in finding the requisite number of patrols of two vehicles each. Also the essence of reconnoitering is to see without being seen; conspicuous or noisy vehicles attract attention wherever they go.

While long reconnaissance will normally be the duty of the Air Force, it is possible that owing to weather conditions restricting Air activity, mechanized cavalry may have to become responsible for all reconnaissance.

In favorable country extended advances and retirements are practicable over considerable distances. "Bounds" of ten to fifteen miles can be made if unexpected obstacles or enemy action does not prevent this. Because of its dependence on (or to say the least of it, its preference for) roads, and of its limited ability of moving freely except in daylight, mechanized cavalry is not suited to long reconnaissance. At night (or at any other time when movement is not possible), mechanized cavalry will experience great

*EDITOR'S NOTE: American doctrine places this rôle in first priority of relative importance.

difficulty in protecting itself, and if obliged to bivouac away from the protection of other troops, its situation will be dangerous. Any detachment that cannot live on the country, when sent on detached duty, is very greatly handicapped; self-propelled vehicles cannot do this, and unless their petrol consumption is low their range of action is limited. This is most marked in Light Tanks; Armored Cars are better. Carriers might be designed so to have a radius of action of several hundred miles.

It is not only in long reconnaissance that these conditions apply. Experience has shown that close and medium reconnaissance cannot be entirely left to the Air Force, and such reconnaissance by mechanized cavalry will be ineffective if it has always to be so closely supported by other arms that it cannot make full use of its mobility. Of course where armies face each other on defended frontiers, in strength sufficient to hold these in force, reconnaissance of any sort will be impossible on an extensive scale, and radius of action will be less important.

PROTECTION

While armored car and light tank regiments of the mechanized cavalry cannot ensure their own protection at rest, they can (as long as they can see to move, in areas where they can either proceed across country or which are well provided with roads) cover the movements of an army by day especially if supported by other troops, such as Motorized Infantry and Mechanized Artillery. The former can also supply some night protection. The proposed Divisional Cavalry mechanized units should be able to undertake their own protection.

In the rôle of protection supply difficulties are minimized, and safety at rest can usually be assured by other arms. The question of rest at night is of some importance, as men to be fit for reconnaissance all day require opportunity to sleep in security at night.

It is doubtful whether, in broken areas where roads are limited, mechanized cavalry can be relied on for complete protection.

Even if it is visualized that the armies of the future will not march on foot, and will consequently fight in terrain over which vehicles can move, it will at least be necessary to reconnoiter areas over which vehicles cannot go. Unless this is delegated to marching infantry it must be entrusted to men riding animals. While horsed cavalry and mechanized cavalry may not always be able to act together they can to great advantage divide the country to be reconnoitered between them.

PURSUIT

While both the conditions of terrain and the limitations of supply will undoubtedly restrict the usefulness of Mechanized Cavalry in the Pursuit, its speed and consequent ability to encircle flanks, makes it invaluable. It can use long circuitous routes useless to units dependent on animals, and can, even when its movements are restricted to roads and tracks, carry out effective parallel

pursuits because as long as it has petrol etc., distance means little to it.

During pursuits its supply services are free from the danger of enemy action and their greatest difficulties will be those of keeping up with the fighting echelons. For this reason Mechanized Cavalry Transport vehicles should be practically as mobile as the vehicles on which the mechanized cavalry personnel are carried. Improvements in carrier or fighting vehicles must be harmonized with improvements in transport vehicles. The present transport vehicles are as good as the present mechanized cavalry carriers etc., but all these must become more and more mobile if mechanized cavalry is to be a success. Some supplies may possibly be captured from the retreating enemy, but it is not likely that petrol will be found; as this, at any rate, can easily be destroyed by fire. Mechanized Cavalry cannot capture or evacuate prisoners; and there is little to prevent those who surrender to mechanized forces, from picking up their arms again and continuing the fight as soon as the mechanized force has moved on. However horsed cavalry has always had similar difficulties.

SPECIAL MISSIONS

The utility of mechanized cavalry in this rôle depends on circumstances.

It is more susceptible to bombing attack from the Air than horsed cavalry, because it does not possess an equal power of dispersion; and cannot so easily use darkness to cover its movements, even when the terrain is favorable, because of the noise it makes. On the other hand it is far less vulnerable to gas spray attacks from the air. Provided that personnel to fight on foot accompanies its vehicles, it can reinforce threatened points. It can seize localities farther in advance of an army than horsed cavalry can, but it cannot so easily defend what it seizes. The proposed divisional cavalry mechanized regiments, in this respect possess an advantage over light tank or armored car regiments, which have to rely on Motorized Infantry. The question arises whether motorized infantry may not be able to do the work without the light tanks or armored car regiments. Dependence on supply dumps seriously limits its radius of action, and the number of roads available is also a vital consideration. Petrol carriers in various echelons can accompany mechanized columns and so triple their radius of action; also aircraft, if available, can drop other supplies that are essential. However, every added vehicle to a special mission is a burden on its free movement. On an independent mission alternative routes of return are as important as ample supplies. Where there is only one road of return, the blocking of this by the enemy would completely cut off the force. Mechanized cavalry is more particularly suited to Special Missions in which the factor of expeditious movement is more essential than that of independent unsupported action.

MOBILE RESERVE

Provided supplies are available and the country and roads are suitable, the wide radius of Mechanized Cavalry

gives it an advantage over horsed cavalry as a reserve that can scarcely be estimated. Probably it is as a mobile force that the present mechanized cavalry attains its greatest usefulness, but as long as its units contain few fighting men apart from those necessary to the fighting vehicles, its utility is lessened, and it will even require the support of motorized infantry to ensure its protection when any circumstance checks its movement.

PARTICIPATION IN BATTLE

The power of mechanized cavalry in battle is centered in its mobile fire power and celerity of movement. It can move from one locality to another in a very short time, and even in battle is able to withdraw from one sector and move to another, should circumstances demand it. But the degree to which it can exercise its fighting power depends on the nature of the country. Woods, rivers, bogs, marshes and steep hills may prevent it from operating in areas where horse cavalry could move without much difficulty. Also owing to the fact even a minor mechanical injury will immobilize a self-propelled vehicle, it is also particularly vulnerable to counter-attack by high explosives from the air, also its usefulness is limited by impossibility of its making concentrated daylight movements that are not clearly visible from the air. On the other hand it will be less affected by gas whether sprayed from the air or otherwise projected than horsed cavalry. The strain on crews resulting from prolonged periods of confinement in closed fighting vehicles goes far to decrease the value of mechanized cavalry carried in these when battles last for long periods.

COVERING WITHDRAWALS

Mechanized cavalry will experience difficulties in holding off a pursuing enemy, especially when its supply services are moving away from it. Its difficulties will be accentuated if it has little or no personnel which can dismount to fight on foot. Vehicles cannot defend positions against serious attacks. Tank units can supply fire in emergencies but vehicles standing still, are exposed to serious danger. Counter attacks involve the risk of running short of petrol.

The defense of positions by anti-tank guns and automatic weapons can be undertaken if there is a personnel available for dismounted action; but in this case the country must be suitable for cross country movement of carrier vehicles, otherwise such detachments may not be able to retire in safety. Unsupported detachments of mechanized cavalry with an available clear line of retreat, can hold defiles or short fronts where there is no danger of being outflanked, for considerable periods; but in all withdrawals the coöperation of horsed cavalry will be almost invaluable if the horsed cavalry is independently employed in localities where vehicles cannot operate. There are bound to be many large areas where vehicles, especially armored ones, cannot move. Horsed units while relatively impotent against mechanized units in open country, have distinct advantages over them when rivers, hills, trees or ravines

canalize lines of advance. This advantage would be accentuated if the horsed unit carried anti-tank weapons in pack.

SCOPE OF THE EMPLOYMENT OF MECHANIZED CAVALRY

Should the new mechanized cavalry immediately assume complete responsibility for all the duties of cavalry, or should it undertake only partial responsibility, at any rate to commence with? The latter is the more prudent policy; it is not wise to place a too heavy initial burden on an arm which has not been tried in the test of fighting.

The extent to which mechanized cavalry is capable of independent action (even when its supplies are secure) remains a matter of doubt as long as it is dependent on other arms for protection at rest, particularly at night. However, this latter difficulty will be greatly reduced if the personnel available for action on foot were increased. In areas where armies are in close contact, and where motorized infantry or other support is near at hand, mechanized cavalry will be far more useful than horsed cavalry; but to send mechanized cavalry which is not organized to provide its own protection on independent missions, which take it far away from the support of other arms, would seem to be inviting disaster.

Although certain types of fighting vehicles possess comparatively great cross-country capacity, this even under favorable conditions is very moderate compared with that of horses. Mechanized Cavalry will remain more or less dependent on roads and tracks, until its power of cross-country movement has very greatly improved. The improvement in design which has taken place in the past two years is out of all proportion to any previous period; this without doubt will continue, but the time is far distant when vehicles will be able to disregard all obstacles which horses easily negotiate. *Mechanized cavalry will for the present attain its highest state of usefulness when acting in conjunction with "Horsed Cavalry,"* so that each can work over the ground to which it is best suited. This does not mean working together, but working separately with a common object in view.

While horsemen cannot fight armored vehicles, they are formidable as ever in areas where motor vehicles cannot go, and such areas will be plentiful in most theatres of war. If horsed cavalry were allotted to areas with the fewest roads and the most obstacles, it would be unlikely that it would ever be exposed to attack by enemy Fighting Vehicles, and even if it were it could always find security in ground where vehicles could not follow without great danger to themselves.

As the rates of movement of mechanized and horsed units greatly differ, combined maneuvers are not practical; coöperation in some cases might be attempted by suitable regulation of the "bounds," but this of course would not be possible in country open enough for the vehicle to advance in "bounds" of ten to fifteen miles.

Participation in battle, pursuit and mobile reserve are rôles to which mechanized cavalry would seem best suited; but even here what it can do is dependent on the ground.

CAVALRY CHARACTERISTICS

Napoleon in a letter to Lauriston dated 12.12. 1804 (for his guidance in command of the West Indian Expedition), says: "The Union of your Forces [Concentration¹] Activity, [Mobility¹] and a firm resolve to Die with Glory [Morale¹] are the three great principles of the Military Art which have made Fortune favour me in all my operations."²

Such principles are particularly applicable to Cavalry; the characteristics of good cavalry have ever been: Mobility, Mobile Fire Power, Morale, Ability to Concentrate in independent masses, or to disperse in small detachments.

Should mechanized Cavalry fail when put to the test, the cause will not wholly lie in the substitution of vehicles for horses; it should be looked for in failings of the above cavalry characteristics. The organization, equipment, and training, of Mechanized Cavalry should concentrate on the cultivation of these characteristics.

MOBILITY

All agree in praising the quality of mobility. Where people differ is in the meaning that they give to the word. The mobility which is essential to cavalry, means capability to minimize transport, to live off the country, to move fast, and to cross difficult country.

In peace cavalry has invariably tended to lose mobility through the habits of encumbering itself with excessive baggage and transport trains. The difficulties of supply and maintenance in war are vast, even if raw materials do not run short and even should science procure ample synthetic products to supplement natural ones. Mechanized cavalry should cut down its transport to the minimum, and combat the tendency to sacrifice its mobility to protection armor that will make it too immobile to carry out cavalry duties. Whenever cavalry (like the Man-at-arms of the Middle Ages) has lost its mobility, by loading itself with armor, it has invariably ceased to be true cavalry.

MOBILE FIRE POWER

Mechanized Cavalry has the inherent advantage that wherever personnel "Carriers" can go, gun and machine-gun tractors and carriers can accompany. The question is whether the mobile fire should be given from moving vehicles protected by armor, or whether guns and machine guns should be transported by vehicles, and fire from the ground. This problem should be decided by the effect that the decision will have on mobility. Armored carriers of any sort have a very limited radius of action, and are also extremely noisy. Unarmored carriers would be death traps, if exposed to hostile fire. In the interest of mobility it will be best for mechanized cavalry to use vehicles for movement only, and to fire from the ground.

MORALE

That elusive thing *morale*, without which Cavalry is

valueless, is more or less identical with the "Cavalry Spirit." This originates partly from sharing danger with the noblest animal in the world and from riders having to consider their horses' comfort before their own. Whether the attempt to preserve old traditions and to give to men carried in self-propelled vehicles the "cavalry spirit" (hitherto associated with men mounted on animals) is or is not feasible, can only be settled by the test of war. But unless this can be brought about the mechanized cavalry arm cannot cultivate a *morale* which will differ materially from motorized infantry or tank corps.

General Fuller³ considers that "morale and the physical paraphernalia of war" are practically negligible and that "tools or weapons form 99 per cent of victory." This does not accord with cavalry experience nor with the opinion of Napoleon. The efficacy of any invention is dependent on the *morale* of the men who control it.

Those who obtain amusement from risking their life and limb in sport connected with horses have always made the best cavalry officers and men; and no amount of theoretical, or technical training has ever been able to take the place of such natural inclinations.

Mechanized cavalry life will not attract those who love the life of a horseman, and the routine of a mechanized unit will not normally produce the atmosphere in which the "Cavalry Spirit" flourishes. If the retention of such a spirit is not fundamental to the experiment of mechanized cavalry, it would be better to raise completely new units unhampered by old-fashioned ideas.

The mechanized regiments will start with the transitory influence of inherited traditions, and with a personnel which has been trained to prize the "cavalry spirit"; but they must face the coming problem of implanting and maintaining the cavalry *morale* and traditions amongst their new personnel, whose philosophy of life will differ widely from those who regard "the way of a man with a horse" as his hall-mark.

It is inevitable that even the original personnel (whether they wish it or not) will become machine minded; a change in the outlook of the rank and file will gradually result in a new type of noncommissioned officer.

Many of the new vehicle minded officers will hold views antagonistic to the horse spirit. Even in the horsed cavalry there were officers who had little belief in the "cavalry spirit," and "horse-minded" officers will tend to become fewer. The cavalry spirit came naturally to men living in an atmosphere of horses. It is not the substitution of the dungaree overalls, spanners and oil-cans for breeches, swords and spurs that will decrease the cavalry spirit, but disassociation from horses. This must change the men's outlook, even if regimental training and routine is primarily organized with a view of keeping the horse spirit alive. The suggestion that officers should be given practical encouragement to continue to hunt, play polo and patronize horse field sports is not a complete solution of the difficulty. Not only will increased expense

¹Words in brackets are the writer's.

²Correspondence of Napoleon.

³Future warfare.

(when units cease to be horsed) gradually disassociate officers from these recreations, but such a project will not maintain the cavalry spirit amongst the rank and file. This is equally, if not more, essential.

The crews of fighting vehicles on active service have a very great strain thrown on them by the prolonged periods which it is necessary to spend under highly uncomfortable conditions. The effects of this strain can only be counteracted by a very high *morale*. In war, when reinforcements will have to be civilian mechanics, the infiltration of their Trade Union ideas will undermine the *morale* of the mechanized cavalry, unless in peace this is so consolidated as to be indestructible. Trade Union ideas may be excellent in their sphere, but they are antagonistic to *morale* and discipline. The republican troops in Spain have found such ideas a great weakness.

While in ordinary units a new mechanized *esprit-de-corps* should be sufficient to deal with such dangers, mechanized cavalry must retain a cavalry spirit. It is unlikely that cavalry *morale* will continue to inspire mechanized cavalry unless mechanized and horse units are so linked together that personnel can serve alternatively with horses and vehicles. This is the only practical way of maintaining cavalry traditions. This, of course, involves the maintenance of a number of horsed regiments, but most countries are still maintaining a fair proportion of horsed cavalry.

The principle of interchange between mounted and dismounted branches, until recently has been in force in the Royal Artillery. It is now being given up because the scientific nature of coast and antiaircraft defense has made specialization advisable. Similar considerations do not yet affect the case of the horsed and mechanized cavalry; and some system (applicable to all ranks) to ensure that the mechanized cavalry will retain some connection with horses and mounted training, is essential to the salvage of the Cavalry Spirit. The ideal mechanized cavalry would be one in which all the leaders had acquired practical war experience with cavalry on horses.

SUITABILITY FOR CONCENTRATION AND DISPERSION

Power of quick concentration and dispersion is a fundamental characteristic of cavalry, but limitations of terrain and road-space create special difficulties about the concentration, movement and deployment of massed mechanized cavalry. Even when concentrations in selected forming up areas are quite feasible, little advantage results unless there are facilities for the advance of such a concentration over an extended front.

Napoleon said that the most abundant means if dispersed, produces little; but to mass an arm which may be unable to make a rapid deployment would only make it more vulnerable to attack. When large concentrations have to advance by road, the length of columns could easily result in the heads of the columns being destroyed long before their tails can deploy. The fact that long columns of fast moving vehicles can deploy in a fraction of time that would be required by a long column of horse-

men does not necessarily minimize this danger. The enemy can move equally fast, and the danger is that the columns of route may suddenly encounter enemy partially deployed.

The theory that mounted troops act most effectively in small detachments coöperating with other arms, and most ineffectively when collected in large independent formations may prove to be correct as regards Mechanized units, although it is opposed to the experience of war, including the last one.

All Reconnaissances, Protection and other Light Cavalry duties call for the employment of small detachments. Unless mechanized cavalry is in a position to detach units approximating to the "cavalry section" patrol, its utility will remain minimized.

As experience has shown that single vehicles cannot act effectively, a couple is the smallest detachment that can be made. Hence it is essential that mechanized cavalry should be given a large proportion of small vehicles, carrying small crews, and that all its vehicles should sacrifice everything to capability of crossing rough country. While the proposed carriers of the mechanized divisional cavalry units convey personnel to carry out dismounted reconnaissance, these vehicles are really too big to be suitable for patrol work, besides there are not enough of them.

The limitations on movement imposed by the ground, will remain to the end of time, and will increase in war as the wear and tear will rapidly deteriorate roads and communications. There will seldom be a galaxy of good roads with open country in between; and the problem of cross-country mobility would only be partly solved by improvements limited to fighting vehicles. Even should these become as useful as horses, interruption of the transport service would immobilize a mechanized force. Actually most of the present transport vehicles are very mobile, but any wheeled transport must largely rely on roads.

TACTICS

Since the beginning of wars, armies have contained different categories of cavalry. Light Cavalry has had the responsibility for reconnaissance, protection and detached duties, while Heavy Cavalry was reserved for battle. But the improvements in firearms of recent years have discredited shock action, and by the time of the Great War the category of Heavy Cavalry had become almost extinct.

An idea has obtained currency that mechanized cavalry should be able to revive cavalry shock action; and its advocates desire that mechanized cavalry vehicles be fitted with sufficient armor to protect their occupants from fire. A force of heavily armored vehicles could never possess the mobility which must be the distinguishing characteristic of cavalry.

On occasions armored fighting vehicles might be able to overrun infantry, not equipped with anti-tank weapons; but this kind of attack should be left to the Tank Corps. The shock tactics of cavalry versus cavalry imply the use

of the mount as a projectile; even tanks are not intended to ram each other. Fire action from moving vehicles was in essence the tactics of the old war chariots. In their day these had an immense reputation, but there are no records of their ever having played a decisive rôle in war.

Mechanized cavalry must not allow itself to be led away by slogans "that mechanized cavalry must be able to fight mounted," but should realize that its mode of action should be to move mounted and fight on foot. It cannot fight mounted unless it becomes a form of Tank Corps, and the temptation to give mechanized cavalry the rôle of Heavy Cavalry in the experiment of mechanized cavalry should be sternly discouraged. Decisive shock tactics have played a meteoric part in war; success has ever been dependent on the presence of leaders of genius. Once these are gone the same men and same horses cease to have same power in attack, and it is unlikely that leaders of the old type will be attracted to mechanized forces. With light cavalry the spirit of the junior officers and men is as important as the personality of the commander, if not more so. But arms, equipment, and mounts must be suitable for detached duty.

Mechanized cavalry must either endeavor to become light dragoons, or else abandon all idea of being cavalry at all. If the arm is to justify its existence as cavalry it must primarily aim at making itself capable of becoming responsible for the duties of light cavalry, and strictly adhere to light cavalry ideas. It should strive to copy what was best in the Saracens, the Cossacks, the Hungarians, the Tartars and the Mongols, and not seek to imitate the knights of the Middle Ages who made themselves immobile by armor.

Units termed "Cavalry" should be able to dismount both men and automatic weapons to hold positions after the manner of horsed cavalry. Its vehicles, by rapid movement across country, should be able to carry its riflemen and automatic gun detachments from one position to another. In independent employment mechanized cavalry should not be hampered by heavy vehicles. Mechanized cavalry of this sort may be considered to lack what has lately been termed "hitting power;" but cavalry of the past has failed when it has concentrated on "hitting power," because in trying to achieve this it has invariably lost mobility. When operating in the front of an advancing force of all arms, tanks and motorized infantry should support mechanized cavalry, in accordance with Napoleon's maxim that "cavalry of the line should be posted in the van, rear, wing and reserve to support the light cavalry." These will be particularly essential should the advance be held up by hostile fire which unarmored vehicles cannot face.

THE MECHANICAL HORSE

One of the most vital decisions to be made by mechanized cavalry, concerns the type of vehicle that is to replace the horse. If the arm is to be capable of detailing small units for patrol work, and of concentrating in large masses, when required to do so, its means of locomotion

must be designed so as to make this practical. The greatest mistake that could be made would be to evolve an "iron horse" which would prove as unsuitable for reconnaissance as were the war-horses of mediaeval knights.

Reconnaissance must form part of almost every cavalry mission, so vehicles must get rid of any system of design that interferes with their becoming truly mobile. The types of vehicle which are proposed for the mechanized cavalry are not suited to reconnaissance. The Light Tanks issued to certain mechanized cavalry regiments are formidable fighting vehicles, but they make no pretensions of being designed to undertake the work of the cavalry horse. Nor can the comparatively heavy armored car, that has been issued to other regiments, claim any great advantage over the light tank. The "carriers" proposed for Divisional Cavalry are far better suited to reconnaissance, but it is very doubtful as to whether these vehicles are either sufficiently numerous, inconspicuous or light, for the patrol work that they may be called on to undertake. Also their radius of action is limited.

Mechanized Cavalry vehicles should be designed primarily for detached duties rather than participation in battle. Facility for an open view is a paramount necessity, and a vehicle, to carry out light cavalry duties successfully, must be able to move over rough country at a fair speed. The cross-country capacity required may be provided by a four-wheel drive.

It has been suggested that mechanized cavalry should be entirely mounted on motor bicycles, or on motor bicycles with sidecars; but neither of these conveyances are really suitable for cross-country work. If several men were to ride on each combination it might be possible under ordinary circumstances to move bicycles and sidecars through or over all sorts of obstacles; but men fighting for their lives, will have neither the opportunity nor inclination to manhandle motor cycle combinations across difficult ground. A trooper has the right to rely on his mount to carry him out of danger in emergencies. A motor cycle combination (which requires manhandling) cannot do this. Some motor-cyclist despatch riders are required to supplement the normal wireless communication system; but such men will mainly use their cycles on roads; generally time will be lost, not gained, should motor cyclists attempt cross-country journeys.

Science undoubtedly will continue to improve vehicles so that they will gradually become less dependent on roads, but there will always remain country where riders will possess an advantage over men carried on any sort of wheel contrivance.

A "one man vehicle" would not be useful for any kind of cavalry detached duty. Driving and reconnoitering are the full time tasks of two separate men. Drivers, especially when moving across country, require to devote all their attention to driving; they cannot, like the riders of horses reconnoiter and control their mounts at the same time.

Although the crews of smaller vehicles might be normally limited to two, vehicles should be capable of carrying at least three; so that the accidents inseparable

from war will not force the abandonment of men whose conveyances have become casualties. Also on occasions it may be advisable to mount more than two men vehicles sent on particular duties. The more personnel carried, the more capable detached parties will be of ensuring their own safety.

"Iron horses" must be handy, able to turn and reverse in narrow lanes and other small spaces, and to negotiate obstacles; they must be capable of accelerating quickly, as well as moving fast, and must possess the quality of reliability. "Unsoundness" is a worse fault in a fighting vehicle than in an animal, because it immobilizes several men.

Vehicles intended for reconnaissance require to be powerfully engined; but should be small, low, inconspicuous, and comparatively silent. It is not sufficient to carry men to some position where they must dismount, and thence work forward on foot. The kind of car required is one that can be taken close to the enemy and hidden behind or under a big bush. It is further essential that they should have a comparatively low petrol consumption. The more miles per gallon that a vehicle can cover, the less dependent it is on petrol depots. A light tank doing three miles to the gallon, has only a radius of action of about one hundred miles without refilling; but a really light car might have a four hundred mile radius.

It is most unlikely that a car designed primarily for patrol duty could be armored, but protective armor is a minor consideration to speed and handiness. The most dangerous enemies of mechanized cavalry vehicles are the anti-tank gun and the Anti-Tank Rifle. On the move, speed is a better protection against these than armor, while at rest inconspicuousness and noiselessness enable the best use to be made of all cover from view. Where natural cover is lacking, smoke can be used. Similar qualities are necessary for the cars for officers and Headquarters.

The anti-tank rifle should enable mechanized cavalry carried in light cars, to defeat light tanks, especially in rough country where the tank can only advance at limited speed. Where this is impracticable, the superior mobility of the light car should enable it to escape from danger.

The light vehicles suitable for scouting will require the support of heavier vehicles carrying larger crews. These may be given some armor to protect vital parts, but should be fundamentally designed to preserve some of the cross-country qualities of the horse. A heavily armored type is unsuitable. The tracked armored "carriers" of the proposed Divisional Cavalry mechanized units have the disadvantages of being noisy, having a radius of action limited to one hundred miles without petrol refill, and of not carrying enough men.

Even the transport vehicles of mechanized cavalry must be able to accompany the units wherever they go. Modern four-wheel drive trucks are capable of wonderful feats, but the performance of all transport in war is disappointing. Overloading is a persistent habit.

The support cars, while unsuitable for close scouting,

would support Patrol cars, and carry crews capable of fire action like dismounted cavalry. The obsolete "cavalry portee" was too conspicuous.

The new type of proposed "carriers" is a step in the right direction; but any tracked type is too heavy on petrol and too noisy. A four-wheel drive is preferable. Fitting support cars with heavy armor and permanently mounted machine guns would make them too immobile as petrol supports. Projectile weapons operated from vehicles may appropriately be used by mechanized Horse Artillery, but such weapons are out of place in the unit vehicles of Mechanized Cavalry.

Tanks should remain a separate arm. Even the lightest of light tanks is not suited to reconnaissance or light cavalry duties. "To see without being seen" becomes a joke if one goes to war in a tank.

ORGANIZATION

It is an old cavalry principle that a troop on reconnaissance can cover a mile of front; a mechanized troop should be able to assume responsibility for a similar area, and the basic tactical unit of the mechanized cavalry organization should be a troop designed for this task.

Such a unit must be prepared to detail at least two (and sometimes three) patrols of two cars each, and yet preserve a small reserve in the hands of its commander. A suitable strength would be six small Patrol cars (carrying about twelve men), two larger Support cars (carrying between nine and ten men each), and a Troop Headquarters Car (carrying the Officer, the troop sergeant and a driver). Should it be wished to make the troop weaker it might have only one Support Car, but this would be contrary to the principle that all vehicles should work in pairs; also troops would have to be much reduced in strength if two Support Cars were not provided. The experience of ages is that a cavalry troop (American platoon) should go to war about thirty-five strong.

A troop of three light tanks or armored cars can act by shock, employ fire on the move and break through wire, but is not a useful unit for reconnaissance or detached duty. Two vehicles being required for any patrol, the third vehicle of the troop becomes useless as soon as two are detached. Apart from this, the three vehicles altogether do not carry enough personnel to make a troop a suitable unit for independent action. Anti-Tank weapons have now robbed the Light Tank of much of the invulnerability that its armor originally gave it.

Those who consider that unarmored mechanized cavalry cannot stand up against armored mechanized cavalry, are referred to the disasters that happened to the heavily armed knights and men-at-arms in conflict with the lightly armed Saracens, and to the similar disasters of the French Heavy Cavalry fighting against the Cossacks. The strength of light cavalry has ever lain in mobility and mobile missile fire. This, in the case of mechanized cavalry, means light vehicles and plenty of anti-Tank and automatic rifles.

COMMUNICATIONS

Although occasionally Motor Cyclists may be sent with messages, normal communications would have to be carried out by wireless, preferably by Radio Telephony. Modern appliances make it possible to hear voice messages, even when noisy engines are running at high speed. Voice control obviates the delay inseparable from written messages; and so prevents possible changes in the tactical situation, occurring during the time of transmission, from making orders inapplicable at the time of receipt.

ARMAMENT

The question of the personal arm of mechanized cavalry requires consideration. There would seem to be little object in issuing the whole of the rank and file ordinary service rifles, because (where stowage room is a consideration), these are more bulky than their rate of fire justifies. The best personal weapon for the personnel would be a pistol carried in a wooden case that could be fitted as a stock to the pistol to enable this to be used as a sort of carbine.

There is a pattern of Mauser pistol made like this which is an effective weapon for short distance fighting, but the idea could be adapted to any kind of automatic pistol. It would be a mistake to burden vehicles with firearms that are not automatic.

Patrol cars should each carry as car equipment an anti-tank weapon and a Bren Gun. Support cars should have one or more anti-tank weapons and a number of Bren Guns. Both these weapons would be essential for serious fighting of any sort. The question of ammunition supply does not present difficulties to an arm which can carry it on the personnel vehicles. Heavier machine guns would form part of the Headquarters Squadron. They might be mounted on armored carriers if their mobility proved sufficient. But it should be possible to remove machine guns from carriers should the occasion demand it.

TRAINING

The objectives of mechanized cavalry training should be to further mobility, increase *morale*, and (by practical instruction on the ground) prepare the arm for fighting, reconnaissance and detached duty. It is most important that all ranks should be proficient in scouting, marksmanship, etc. The temptation to devote long periods to instruction about internal combustion engines should be

resisted; available time is limited; and it is fighters, not mechanics that are wanted.

Undue importance should not be attached to technical qualifications; the men, whose minds revel in problems of engineering and electricity, are seldom interested in tactics. The primary duty of mechanized cavalry is fighting, not technical repairs. When cavalry rode horses its Veterinarians belonged to a specialist service; now, when it uses vehicles, the ailments of the vehicles should also be the responsibility of specialists. In war, mechanized appliances, requiring anything beyond First Aid, must either be taken over by the Repair Service or abandoned to the enemy.

CONCLUSIONS

For the present the best policy for mechanized cavalry, will be to regard everything connected with it as experimental; and while its eventual objective should be that of succeeding horsed cavalry as "the eyes and ears of the army," it should at any rate for the present regard horsed cavalry as its elder brother, guide and mentor, and not consider it a senile ancestor who has outlived his usefulness.

As time goes on, practical experience will throw new light on some of its problems; but it will only be after it has been tried out in war that its possibilities and limitations will be thoroughly understood.

The fundamental fact, ever to be kept in mind, is that unless mechanized cavalry regulates its corporate life by cavalry principles and tactics, preserves at all costs the qualities of *Mobility* and *Morale* and ensures that its organization and equipment is equally suited to concentration or dispersion, it will lose its justification for remaining a separate arm. If it allows itself to be enticed to disregard such principles, its fate will be either that of being merged in the Tank Corps, or of becoming Motorized Infantry. It should ever remember that there are many who would rejoice to see the word "Cavalry" expunged from the military vocabulary.

Armies must frankly face the fact that mechanized cavalry is not equally suited to all possible theatres of war. In Western Europe, with its network of roads and railways and its numerous and convenient sea bases, it should be at its best; but in proportion as these advantages absent themselves, so does the value of mechanized cavalry decline. There are circumstances where it might become a mere liability, instead of an asset.



Cavalry in Palestine

The Scots Greys Regiment has embarked for service in Palestine, where at long last they have discovered that cavalry are the best antidote for the prevailing disease. The Royals have also been detailed for service and possibly if all our fine cavalry regiments had *not been scrapped in*

such a hurry the officer directing operations in that unholy land would not have been exactly inconvenienced if it had been possible to give him a whole division of real cavalry. —From "The Tattler," London, October 5, 1938.

IMAGINATION GONE WILD

By Brigadier General H. S. Hawkins, Retired

A study in the changes in cavalry and the development in mechanization from 1934 to 1938, in Great Britain and all the great powers in Europe, reveals a complete confusion of mind and of ideas in these military circles. Lack of imagination or imagination gone wild because there is no foundation of knowledge, a sheep-like rush toward mechanization and motorization without clear thinking or any apparent ability to visualize what takes place on the field of maneuver or the battlefield, have all led to a foolish and unjustified discarding of horses.

An undigested idea that troops piled into motor vehicles may be more effective than cavalry, a stupid ignorance of cavalry and of how it should be equipped, organized, trained and led, and a further ignorance of how to employ cavalry, a lack of understanding that the mobility of motor vehicles on roads and the mobility of horsemen across country are two different things, a neglect of the teachings of history, false conclusions drawn from poorly trained and poorly led cavalry units, have induced the most ridiculous changes and expedients in the armament, equipment and organization of what they call the new cavalry units. In fact, on this subject the military mind in Europe seems completely addled.

The result has been that we see so-called cavalry units, or so-called reconnaissance units, or so-called mobile brigades and divisions, organized and equipped in a manner truly fantastic, a heterogeneous assembly of all known weapons and units designed to meet every possible contingency and to be self sufficient under all conditions whatsoever.

Having committed themselves to the idea that light tanks could replace cavalry, most of the old cavalry divisions were completely unhorsed. Then they commenced to realize what should have been obvious at the outset, that the tanks need the close support of infantry or cavalry. So, they attempt to supply this support by the use of motorized rifle and machine gun units. Then a reaction sets in, and they begin to understand that there are some things that mounted troops can do that motorized troops cannot do, so they slip in a horse unit. Then the war in Spain showed that modern anti-tank guns drill daylight through the tanks. So they now prepare to increase the thickness of the armor plate on tanks. Now it appears that it is just beginning to be realized that heavier armor plate will decrease the mobility of tanks in cross-country movements, and some of their divisions have had their horse units increased.

At present, we see these former cavalry divisions in some countries composed of a unit of horsemen, a unit of tanks, and a motorized rifle and machine gun unit, without any idea whatever of relative proportion between these units. There is nothing but guessing, and unintelligent guessing at that. How these divisions with their

incompatible components can be operated and controlled by one commander nobody knows.

No large unit without a main or principal element in it which sets its pace and dictates its employment can be kept under control by its commander or operated with unity and effectiveness.

A cavalry division should be composed primarily of horsemen. A few scout cars, a few staff cars, a few motor cars for communications and administrative purposes, and perhaps a motorized supply train, are necessary. Such a division can perform any cavalry mission required of it. Sometimes a tank unit or a motorized infantry unit might be attached to the cavalry division. But in such case, it is the cavalry which precedes during the march toward the enemy.

There is no sense in trying to organize a large so-called reconnaissance unit of mechanized or motorized forces. Reconnaissance for an army should be performed by its covering force, together with other missions. But, however, when a unit is engaged in reconnaissance we can for discussion refer to it as a reconnaissance unit. Reconnaissance units must, to perform their functions, be operated independently. In other words, they cannot rely on the close support of the larger units in their rear, and they must therefore be able to take care of themselves when they meet the enemy. That is to say, they must be able to make contact with hostile forces without involving themselves in a fight to a finish. They must be able to strike quickly and overwhelm weaker forces and to extricate themselves when they have become engaged with unexpectedly superior forces. To do this they must have great cross-country mobility. They cannot be confined to roads. To engage in this kind of service, tank units, either light or heavy, must be supported by rifle and machine gun units. But if these latter units are transported, or porte-ed, in motor vehicles, they have very little cross-country mobility. Motorized infantry used to support the mechanized elements will have to detruck at safe distances from the enemy. Then it must be deployed across-country. The action slows down. And if a quick withdrawal becomes necessary this infantry will have to be assembled near roads so that they can be entrucked again. The trucks will have to be turned around so as to move to the rear. Other trucks coming up to load the infantry will have to pass those going back. So a two-way road will be necessary. Such arrangements are certain to be complex and to consume much time before the infantry can be entrucked and moving speedily in their withdrawal. If the enemy presses hard, the tanks may have to be halted in a defensive attitude to assist the infantry to accomplish this withdrawal. If the enemy has a large force of cavalry and numerous batteries of antitank guns, the reconnaissance unit may find itself attacked in front and on the flanks,

the roads leading to the rear cut by cavalry that has infiltrated across-country, the entrucked infantry columns attacked by hostile aviation and a very serious condition prevailing.

In the meantime, there being no adequate covering force in front of our army, the hostile army may be advancing rapidly to the attack. Our only information is now obtained by observation airplanes, there is no delaying action, the enemy has the jump on us and we have not time to deploy or arrange all units, we have lost our liberty of action and the ensuing battle will be fought at a great disadvantage.

Of course, if the enemy is so unwise as to compose his covering and reconnaissance forces of motorized and mechanized elements only, or to use these mixed divisions, before referred to, for such missions, we should probably be at no disadvantage. A stalemate will probably result along the whole front. But if a numerous cavalry is employed properly there is a chance for a decisive success very early in the campaign. Used first as a covering and reconnaissance force and then as a battle unit in the battles of the main force as conditions permit and require, one or two cavalry divisions with each field army, in addition to the G.H.Q. cavalry corps, are necessary. And these divisions must be real cavalry divisions, as the only organizations capable of performing the various cavalry missions.

And so we can now concern ourselves with some of the various methods that cavalry must use. In the *attack* there are three ways, broadly speaking, which cavalry may use. The mounted attack, the dismounted attack, and combinations of the two.

The power of a mounted attack made by soldiers armed with and using automatic pistols has never been revealed to the military authorities of any country except our own. Our Civil War and our frontiersmen and soldiers in the early days of the West gave to us our traditional faith in the pistol for close combat. And that faith was increased by the introduction of the automatic pistol. If our men are properly trained they should be worth twice their numbers of soldiers armed with any other weapons for close combat, and this applies to dismounted combat as well as mounted combat. But it has been found that dismounted cavalrymen will attempt to use their rifles in close combat, even if they have no time to load and have to use them as clubs, unless they are trained to be pistol conscious. There is now little doubt that most of Custer's men who were killed by Indians in his last battle died without drawing their pistols. Of course, these men were mostly recruits. Other instances of the same thing have been known. For these reasons, our men are required in training to draw their automatic pistols when simulating a dismounted assault upon the enemy.

When engaged in a mounted pistol attack, there is, of course, no need to remind the soldier that he has a pistol. But there is need to give him training as to how to use it. He must, first of all, be taught the safety exercises, mounted and dismounted, prescribed in the pistol manu-

al. Otherwise, there may be accidents which make the young soldier afraid of his pistol. Then he must be taught how to shoot it. This is not difficult. Confidence in it and reliance upon it must be built up. And then the pistolman becomes very formidable in close combat.

It is well known in our cavalry that mounted attacks require two things first of all. Fire support by machine guns and proper deployment in successive lines are always essential. But we must also consider the ground.

Unless the ground is such that cavalry cannot gallop over it, or there are obstacles such as barbed wire entanglements, or deep impassable ditches, or a knee-deep swamp, or other obviously impassable obstacles, cavalry can make mounted attacks better than dismounted attacks, provided that the ground does not lend itself especially well to dismounted attack. Ground that is favorable to dismounted attack is ground that is broken up in such a way that the dismounted trooper can find cover every five, ten, fifteen or twenty yards in front of him during his advance toward the enemy. Of course, whether this attack is mounted or dismounted, cavalry, like infantry, must be superior in force to the enemy in order to attack with success, unless it is a matter of a break-through or the enemy is demoralized or very inferior in arms or in quality. Assuming this superiority of force, the question as to whether the attack is to be mounted or dismounted is determined by the ground. Ground affording cover is favorable to dismounted attack. Ground affording little or no cover and without impassable obstacles is more favorable for mounted attack.

All attacks should be supported by fire of machine guns placed in suitable firing positions beforehand. But if the attack is made in order to break through and escape, the machine guns in pack must follow the mounted riflemen closely and cannot be left on the ground to give supporting fire.

Mounted attacks cannot be made against tanks. But cavalry can defend itself against tanks by means of its anti-tank guns. Hostile tanks or mechanized force should be induced to attack first, and when these vehicles are disabled by anti-tank guns the attack may be launched against them. Therefore, when the enemy is known to have mechanized force, any attack, mounted or dismounted, should be followed closely by anti-tank guns so as to resist any counter attacks that might be made by the hostile machines.

Combined attacks, by which we mean attacks made with part of the force dismounted and part mounted, can be made when the ground is favorable to dismounted attack in a zone of action occupied by a part of our force, while the zone in front of another part of our force is favorable for mounted attack. As in almost all other attacks, a part of the force must be kept in reserve. In practically every case that has been recorded of failure of the mounted attack we find that one or more of the following requisites has been absent or neglected: (1) Superiority of force. (2) Adequate fire support. (3) Proper deployment. Under the same circumstances the dismounted at-

tack would probably have been a greater failure or even disastrous. Of course, there are other desirable things to consider—surprise, the ground, use of reserves, limits of the objective or of the pursuit.

The history of cavalry action in all modern warfare has proved that these statements are facts. And therefore we can base upon these facts our ideas as to the employment or rôle of cavalry.

The necessity for depth of deployment, or successive waves closely supporting each other is well known. So, it is not necessary to describe the attack formations of the various units. These are found in the drill and training regulations.

Now, cavalry has also great defensive power. Many of its actions are going to be fought defensively. Delaying actions, holding strategic points until reinforced or relieved by infantry, bridgeheads, occupying gaps between infantry units long enough to permit the infantry to arrange to fill these gaps or to withdraw in good order, holding off enemy flanking attacks, interrupting a retreating enemy and holding him long enough to permit our pursuing infantry to close with him, rear guard actions, etc. But in order to gain the positions or locations where these defensive actions are to be fought, it is generally necessary for the cavalry to attack elements of the enemy that interpose themselves between it and its destination. So, even when the mission of cavalry is defensive, it must be prepared to attack the enemy in the performance of this mission.

The *purely offensive* missions of cavalry are many. Flank attacks in conjunction with the infantry attack, attacks in gaps between infantry large units, attacks on key points over ground unsuitable, on account of lack of cover, for either infantry or dismounted cavalry, and attacks in pursuit. Cavalry should often be held for its greatest mission of all, a purely offensive mission. It is to strike at the critical moment at the sensitive spot of the enemy. This may be the flank attack, already mentioned, or it may be that the cavalry is held as a mobile reserve until a success is gained and the enemy is launching a counter attack. The cavalry now is sent to attack the enemy troops in their counter attack, and the infantry follows up this action.

Infantry is equipped, organized and trained for both attack and defense. And the same thing must apply to cavalry. But it is not contemplated that cavalry action either in attack or defense should be as prolonged as infantry action frequently is.

So, it would not be wise to equip and organize cavalry more for defense than offense no matter how many missions of cavalry might require defensive action.

Then there are other missions such as reconnaissance and screening, or covering force duties, which may demand attack or defense as circumstances seem to require.

Harassing attacks, which are made on the enemy flanks and rear and by fire only, are not purely offensive actions and may be a form of delaying action.

These various missions should be well understood by the

commander of a mixed force. And cavalry should be used only when the necessity for one of these missions is distinctly apparent. The cavalry commander should be given one or several of these missions in clear terms. He should not be obliged or permitted to determine his own mission. The question of mounted or dismounted action, or other means of carrying out his mission, should be left usually to him.

When cavalry is required to attack, a mechanized cavalry unit will be of great assistance in many situations, particularly when it is desired that the attack be a mounted one. Just as the cavalry has its own machine guns to support its attack, it should also have its own mechanized elements for the same purpose. The machine guns support the attack by fire action. The mechanized elements support the attack by both fire and shock action. The mechanized elements might support the attack by a separate flank attack, or they might precede the horsemen in a mounted attack.

In defensive or delaying actions, the mechanized cavalry elements can support the other elements by harassing attacks or by threatening to attack the enemy in flank. We should not expect our combat cars (light tanks) to act as steel "pill boxes" for stubborn defense. But for long range fire from camouflaged or hidden positions, they should be useful. By the time the enemy has brought his anti-tank guns or his artillery into action against them they can have moved away and considerable delay may have been effected.

We are justified in having a small proportion of our cavalry mechanized if it is understood clearly that, like our machine guns, it is an essential part of the cavalry and is to be used in and with the horsed cavalry and not independently. It must be equipped and organized primarily for attack, but must also be useful for short defensive actions at long range.

An examination of the history of cavalry reveals the great number of small combats in which the cavalry has been engaged. And this applies in great or small campaigns and in modern as well as older forms of warfare. Therefore, the regimental and squadron commanders, and even the troop and platoon commanders, are more likely to find themselves in command of units acting alone, with grave decisions to make, and more varied tactical methods to apply, than is the case in any other branch of the service. Quick decisions, and speed of execution of the various evolutions by the component parts of a unit, are very necessary. It is for this reason that the cavalry drill regulations prescribe that all evolutions are performed by leading squads via the shortest lines to their proper relative positions. And so it is, in turn, for larger units, platoons, troops, squadrons, regiments. Any formation can be taken directly from any other, and in any direction, front, rear, right or left. This flexibility is essential. But it is necessary to practice it on the training grounds. Having it merely in the regulations is not sufficient.

Simplicity is as necessary as flexibility. In fact, the two go hand in hand. And this leads me again to the discussion

of the distribution of the machine guns. For the attack, machine guns are supporting weapons. All tactics can be boiled down to the simple proposition of fire and movement. The movement echelons move toward the enemy to engage him at close quarters. The fire-support echelons engage the enemy from distant fixed positions or a series of such positions. Their fire assists the movement echelons to advance upon the enemy. Artillery and machine gun units constitute the fire support echelons. Rifle units, armed also with pistols for close fighting, constitute the movement echelons. Rifle units have much fire power at close ranges or just before the actual close combat fighting takes place. Assaulting units must, therefore, be armed with rifles, both for close range fire in the dismounted attack and for defensive purposes to repel counter attacks whether our attack be mounted or dismounted.

But the fire-support weapons are not intended for close combat. They hold the enemy off at a distance. It is more difficult for the personnel with these weapons to advance by use of cover toward the enemy than it is for riflemen. They should remain in fire-support position for both mounted and dismounted attacks, until they move forward for further action. Therefore, the proportion of riflemen in a regiment must be much larger than that of machine gun personnel.

It would seem simple and natural to organize the rifle and machine gun personnel into separate units. One to advance and one to support. This is actually being done. The only question that arises is how far down the scale in the size of units should both machine guns and riflemen form component parts of the same unit.

Since the fire-support echelons must be posted on a different part of the field from the movement echelons, it is manifest that the former must be controlled by a separate leader. Platoon commanders of rifle units must advance with their riflemen. Obviously they could not control a separated machine gun component. The same idea applies to a troop commander of a troop acting in the squadron. A squadron commander, however, is not so intimately associated or so closely engaged with his riflemen that he could not handle both a movement echelon and a fire-support echelon if his squadron is acting alone. And even though his squadron is acting in the regiment, it is liable to occupy considerable front, or to be separated as a maneuvering force, so that the squadron commander could use and control a fire-support echelon of his own.

In the regiment, there is no doubt that a fire-support echelon is needed even when acting in the brigade or division. The battle front of a brigade or division is liable to be so long that machine guns segregated under control of these higher commanders would not be able to cover the entire front with their fire.

The question narrows down, therefore, to the selection of the regiment or the squadron as the unit to contain a machine gun component.

If the machine guns are massed by the regimental commander, which he will certainly have much occasion to do (especially for mounted attack) they must be organized

into squads, platoons and troops and commanded by an officer with a small staff. If not already organized as a separate squadron, this would have to be done at the moment of going into action. Therefore, if the machine guns are assigned to the rifle squadrons, this dilemma would arise frequently. But if the machine guns are organized into a separate squadron in the regiment and it becomes necessary to attach a part of them to a separated rifle squadron, no such dilemma arises. A unit of the machine gun squadron is quickly attached by a very simple order to any squadron or even a troop if necessary. And no re-organization is necessary.

For these reasons the heavy machine guns have been, in the past, made a separate regimental organization. Infantry battalions are so large that they correspond tactically to the cavalry regiment rather than to the squadron. They are, therefore, given their own machine gun units.

Now, when it comes to the light machine gun, a different line of reasoning prevails in some circles. These persons believe that the light guns are more nearly akin to the rifle and that they can operate closely or actually mixed in with the riflemen. But, the light machine gun is still a machine gun. When the unit is mounted it must be carried on a pack horse. When the unit is dismounted it requires a crew to operate it. It is much heavier than a rifle and more difficult to carry during an advance by the use of cover. It is not a suitable weapon for fighting at close quarters. Mixed in with front line riflemen during an attack, it is difficult to supply with ammunition. It could be of no use in the movement echelon because of inability to keep under cover. And yet it would have to be placed in the leading wave of riflemen because, if placed in rear waves it cannot fire without firing through the leading waves. Its fire power cannot be compared with the heavy gun. It has not the accuracy or the volume of fire. Since it must have a very low tripod, it seldom has sufficient command of the ground to engage in really long range fire. It cannot maintain a sustained rapid fire without overheating the barrel. And for these reasons, it is not effective as a weapon for the fire-support echelon. It is of little use in the movement echelon for reasons already stated.

In pack, the light gun is no more mobile than the heavy gun. There is nothing that the light gun can do better than or as well as the heavy gun. Its only advantage is that it is lighter for the dismounted man to handle. But it is not light enough for him to handle it without exposing himself too much if he is in the movement echelon. For mounted attacks it exposes men and horses without any compensating value.

There is no place in the cavalry for such a gun. Why waste crews of men and extra horses on it?

For defensive purposes this light gun has some value. All guns have. But it is not nearly as valuable for this purpose as the heavy gun.

For simplicity and flexibility all machine guns belong in the fire-support echelon. As thus disposed they support the attack. And in the defense they can be distributed along

the line by the machine gun commander and supplied with ammunition by him. One type of machine gun organized in one separate unit in the regiment is the obvious answer.

The .50 caliber machine guns should be organized with units in the brigade or division. They can be attached to regiments when the latter seem to need them for anti-tank fire. The same applies to all anti-tank guns.

A characteristic of cavalry is mobility. But we cannot stress too much the fact that the important element in mobility, as possessed by the cavalry, is its cross-country and its battlefield mobility. Troops riding in railroad cars or in trucks travel faster than cavalry can march. The importance of cavalry mobility, therefore, becomes apparent in the tactical march more than in the strategical march. Cavalry itself can be transported by railroad cars or sometimes by trucks. Like other troops, cavalry must detrain or detruck at a safe distance from the enemy. It is then that its mobility becomes important. Its mobility in gaining flanking positions across country, its mobility in going into and out of delaying actions, its mobility in reconnaissance, its mobility as a covering force, its mobility in attacking across fire-swept areas, or in fact wherever cross-country movement is necessary.

The greatest error we can fall into is to regard reconnaissance as the principal rôle of cavalry. This error leads us to organize and equip our cavalry for this purpose only. But if we arm and organize for that form of battle, both attack and defense, which utilizes mobility to the utmost, then whatever the rôle or mission that may be assigned for any occasion, the cavalry will be able to perform it. Reconnaissance itself is better performed by an organization of that sort than by one that we have attempted to arm and organize especially for that purpose. In the same way, an organization for attack lends itself to defensive action, whereas, an organization for defense only is almost certainly found to be less effective for either attack or defense.

There is a great deal of talk about combat groups for the defensive organization. The idea is borrowed from the French. A group of ten or twelve men with some kind of an automatic weapon, like the machine rifle or the light machine gun, forming the nucleus of its power, and the others armed with rifles. As this does not fit in with our organization of squads and platoons, we have extended the term to mean a platoon of riflemen reinforced by a light machine gun squad of two guns. But for cavalry it is not necessary to organize these combat groups. The rifle platoon is sufficient. The heavy machine guns should be posted along the line so as to utilize their fire in the best manner. This determines the front to be occupied and depends much upon the character of the ground. The rifle platoons should then be posted from fifty to two hundred yards apart and in such a manner as not to interfere with the machine gun defensive fire. The platoons should each occupy not more than one hundred yards in front but must be disposed so as to support adjacent platoons if necessary. The platoons should be posted not less than

fifty yards in front of the general line of machine guns and in such a manner that the prearranged machine gun fire will pass through the intervals between the rifle platoons. The power of this organization depends largely on the number of machine guns available and the extent of the front to be occupied.

Light machine guns add very little to the power of defense. If the defense is to be of a protracted or stubborn nature, we need to organize what is called a position defense. This requires plenty of heavy machine guns arranged so as to cross their fires. The rifle platoons must be placed so as to utilize their whole rifle strength and not deployed in depth. The depth required is attained by posting platoons in support in each troop, and by having a squadron reserve. And if more depth is required we have a regimental reserve consisting of one of its three squadrons. Of course, any additional gun adds to the power of defense, but the light machine gun has so many disadvantages for a unit organized for both attack and defense that it is better to utilize our man and horse power to have a few more heavy guns and no light guns.

If the defense is to be what we call deployed defense, which might be used against weak forces of the enemy, or in delaying actions against strong forces, then again, the heavy gun is what is needed, not the light gun.

Thus, by utilizing our rifle power more and our heavy machine guns more, we can have a much simpler organization which is more powerful for either attack or defense than by complicating things with an additional type of weapon which is not in itself very effective.

The number of heavy machine guns in the regiment should be limited to sixteen. We have difficulty in utilizing more than this number for fire support in the attack. In defense we can utilize almost any number. And so it would be wise to have an independent machine gun squadron in the division or brigade. This squadron made up partly of .50 caliber machine guns, or other anti-tank guns, and partly of .30 caliber machine guns, and organized principally for administrative purposes, could reinforce any regiment or regiments needing more machine guns for a protracted position defense. It will be rare that a regiment acting alone will be required to fight in such a defense.

Whatever may be the complex requirements in an infantry regiment, the nature of cavalry missions requires great simplicity. And therefore, the smaller units must be very homogeneous in their nature. Rapidity in deployment, rapidity in reforming marching columns, speed in the execution of almost all types of cavalry action, all require that riflemen and supporting weapons be organized separately and that the smaller units, such as platoons, troops and squadrons, be homogeneous in their composition. Supporting weapons should form no part of these organizations except when attached for definite, clear and distinct purposes which have no relation to an idea that such weapons might be necessary as a general precaution.

It is true, as before stated, that cavalry will be engaged very often in small combats. Platoons, troops and squad-

rons will often act alone. But the nature of such combats will not often require or even permit the use of machine guns. It is dangerous for a small isolated unit of cavalry to dismount to fight on foot except in harassing actions. They cannot put machine guns on the ground and then ride off to the attack unless they are certain that they are superior to the enemy. Otherwise, the separated machine guns may not be able to rejoin the rifle unit. Machine guns are more liable to hamper than to assist small units acting alone. If the mission requires the holding of a bridge or defile for a certain time, then enough machine guns should be attached for this purpose. A detached rifle squadron might have more need for machine guns than smaller units would. And so, when detaching a rifle squadron the regimental commander would often attach a platoon or two of machine guns to such a squadron. Therefore, the fact that cavalry small units do often engage in small combats alone does not warrant the organic assignment of machine guns to the units. The really important use of machine guns comes when the larger cavalry units go into action. Then it becomes absolutely necessary to use the greater portion of the machine guns in a separated fire-support echelon. And, as already explained, this cannot be done unless there is a central organization already in existence in which the smaller machine gun units are an organic part.

There is another thought about cavalry which may as well go in here. We read newspaper accounts of the great use of tanks and airplanes, especially the latter, in attacking troops in the war in Spain. We might be led to believe that the older branches of an army could not endure these attacks and that the machines on the ground and in the air had become the principal arms. Under these circumstances cavalry might not be able to exist. But if we pause to note that the armies are made up almost wholly of artillery and infantry, we can conclude that a numerous cavalry could also be used effectively. Because, as long as infantry is used, cavalry can be used and is very necessary, except in trench warfare. By trench warfare we mean a situation where both sides are entrenched and facing each other at short distances, and there has been time for each side to improve their entrenchments until they are formidable fortifications and not merely the hastily prepared defenses which are expected to be used only a short time. In open warfare, entrenched positions will be used and will be attacked. As long as neither side has been able to stabilize thoroughly its position and to close its flanks to any maneuver by the enemy, the operations should be classed as open warfare even though entrenched positions are used.

Cavalry is less vulnerable to airplane attack than infantry because it can disperse so much faster. When infantry tries to increase its mobility by making its tactical movements in trucks near the enemy, it exposes itself to disastrous attacks by hostile airplanes. Such movements must therefore be limited to areas quite distant from the enemy or they must be made at night. Even then they are not entirely safe.

If infantry can operate as they are doing, we may be

sure that cavalry can do it also. And the cavalry is so important to the infantry in open warfare that it must not be overlooked as an important member of the great infantry-cavalry-artillery team.

Organizations operating anti-aircraft and anti-tank guns have become important to the infantry, cavalry, and artillery branches of the service. These guns have become very effective. The question is how to use them in an army in the field. It seems to be a common opinion that the troops in the field must rely on their own weapons for their defense against airplanes and not upon these special guns. But I am inclined to the belief that units as large as the regiment should have some mobile type of anti-aircraft guns with them and with their trains. It cannot be expected that we should have anti-aircraft guns to meet every attack that might be made by hostile airplanes. Bases of supply, railroad junctions and even manufacturing cities that lie within the probable theatre of operations will need these guns. It will take thousands of them. But nevertheless, the troops in the field should not be left helpless against hostile air forces if the enemy is well supplied with numerous military airplanes. If we can supply the troops with anti-tank guns as we seem to be doing, we can also give to the mobile troops enough anti-aircraft guns at least to make it unhealthy for hostile airplanes to fly at low altitudes over them. This, and the attack by our own air forces upon enemy airdromes should be sufficient.

The chief danger to cavalry from enemy airplanes will be when large forces of cavalry are in camp or bivouac. This will require the cavalry to learn the trick of bivouacking in small groups and the skillful use of cover. Cavalry will not be forced to utilize the night for all movements. It can take care of itself on the march in daytime. This will leave the nights for rest and recuperation. But in exposed terrain it will have to go into bivouac after nightfall and leave before dawn.

Another thought about tanks and the cavalry defense against them. In the war in Spain tanks armored with one-half inch armor plate have been proved to be too vulnerable to anti-tank guns and to artillery. The tendency now seems to be to increase the armor to one inch or more. It is claimed that this does not reduce the mobility of tanks too much. But it is certain that such a heavy increase in armor weight must decrease mobility to a very considerable extent. The tanks are liable to become moving fortresses. And even then, anti-tank guns are certain to retain their power over armored vehicles.

The guns may have to be much heavier. This might preclude the packing of these guns on horses for cavalry purposes. But this need not dismay us in the least. If the guns cannot be packed on horses they can certainly be carried on light gun carriages which will not decrease cavalry mobility to any very great extent. Even machine guns and 37-mm. guns carried on light wire-wheeled horse-drawn carriages have been shown to be able to keep up with large units of cavalry across country in almost all situations.

If cavalry mobility is decreased slightly by the necessity

of having anti-tank guns borne on wheels, the mobility of heavily armored tanks will be decreased in much greater proportion. The cavalry will still retain its great superiority in mobility across country over any form of tanks.

It is to be expected that the race between armor and guns will go on until the tanks become so heavy that they can be used only in the most ponderous movements. And then, the cavalry missions will not require that it deal with tanks at all, and anti-tank guns will not be necessary as equipment for cavalry. It is only when tanks are very light and mobile across country that cavalry must deal with them. And in this case, the cavalry will have anti-tank guns light enough to avoid any great decrease in its mobility.

The naval race between armor and guns is subject to very different factors from those that would obtain on land. At sea the great heavily armored ships can still be propelled at great speed. And although the gun has retained its superiority over armor, an armored ship cannot be destroyed or sunk by the same number of hits that would destroy or sink an unarmored ship. The sea does not subject its floating fortresses to the shocks or obstacles that the land would oppose to very heavy moving machines. The heaviest tanks must therefore be very small indeed as compared with warships. Long range guns are not nearly as important on land as on sea, because visibility on land is impeded by so many obstacles that the difficulty of observation, so necessary in long range fire, is much greater on land than on sea. Only the coast artillery, which fires across the water on sea targets, can utilize the longer range guns comparable to naval guns. An exception to this is, of course, the railroad artillery which can be used at long range to bombard fortresses or large centers of military importance.

Since tanks cannot be as large and heavy as warships, they cannot carry as heavy armor or as heavy guns, and anti-tank guns do not have to be as large as naval guns.

The size and weight of tanks must be limited by the

necessity for mobility in a greater degree than is true of warships. Speed is very essential for warships, but the large and heavily armored warships can be propelled at speeds which are not so very much less than the speeds of lighter vessels. And since heavy long range guns are so desirable for warships, these vessels must be large and stout enough to carry and use such guns.

Thus our problem as regards armored machines is very different from that of the navy. If the armies of the world should go to the use of heavy armor for tanks, they will lose so much mobility that the need for a very mobile arm of the service like the cavalry will be increased instead of diminished, and anti-tank guns, more mobile than the tanks, will always be able to interpose between tanks and their objectives, to outshoot them and to penetrate their armor.

When we read of the terrific hand-to-hand fighting that is going on in China, fighting with bayonets, swords, knives and clubs, we should understand with added clarity the truth of the old principle that, in the attack, victory is won in the close combat of men, and that cannon, machine guns and all improved weapons of long range fire are merely the means to enable the men to close with the enemy. These same means, which are used by the attacking troops to enable them to advance upon the enemy, are also used by the defending forces to hold the enemy off, and to these means the cavalry adds its great battlefield mobility. Moving to the attack with speed ten to twenty times that of any other troops, and using these same supporting weapons, the cavalry can close with the enemy with fewer losses. And in defense, the cavalry can use these same weapons to hold off the enemy until it becomes apparent that the enemy is going to be repulsed or is going to succeed in closing. The cavalry can then elect to remain and fight it out at close quarters or to withdraw and move swiftly away after having punished and delayed the advancing foe.



Animals in Ethiopia

This table shows the number of animals employed by Italian forces in Ethiopia including battle losses:

Month	Total Strength		Percentage Loss
	of Force	Total Loss	
July, 1935	30,000	64	.213
Aug., 1935	37,000	161	.438
Sept., 1935	56,000	315	.562
Oct., 1935	70,000	1,217	1.738
Nov., 1935	73,400	2,107	2.870
Dec., 1935	77,963	4,574	5.860
Jan., 1936	67,988	5,326	7.833
Feb., 1936	63,578	3,180	5.002
Mar., 1936	62,388	7,571	12.160
April, 1936	55,366	5,748	5.770

—Veterinary Bulletin, October, 1938.

Editorial Comment on

"Belleville Daily," Belleville, Illinois, October 5, 1938:

But best of all, perhaps, was the visual proof, so often read about but seldom seen in this part of the country, of the maneuvers by which the War Department is preparing to show the rest of the world that this nation stands for peace and is prepared to maintain it.

An observer is warned by a pervading sense of security as he realizes that this brigade is but a hundredth part of the nation's land fighting force ready to spring to the defense of the country at the first warning.

But let it be noted and noted well that there was not the slightest sign of bullying, aggressiveness or irritation displayed by the personnel of this crack brigade.

Even on the highways these soldiers of Uncle Sam gave civilian motorists a splendid illustration of the meaning of road courtesy.

See these men and machines at Scott Field today or as they move on toward Fort Riley, Kansas, early tomorrow morning.

And then go back home secure and proud in the knowledge that with such outfits as the Seventh Cavalry Brigade and hundreds of similarly trained military units making up Uncle Sam's fighting force, no foreign enemy is going to set back our borders or change our form of democratic government.

"St. Louis Times," October 5, 1938:

For in the United States, as this demonstrates, the movement of a body of troops is a matter of news. Many St. Louisans, particularly those of the younger generation, will be seeing a large number of soldiers for the first time. But throughout Europe, military maneuvers are a commonplace. Soldiers, rifles over their shoulders, swing down the street and the French or Italian civilian scarcely turns his head to look, so often has he seen armed columns before, so much is the presence of the military a part of everyday life.

The coming of this mechanized cavalry suggests another, equally impressive thought. This is the inevitability as well as the force of mechanization. For it was frequently said that the Army at least would hold on to horses; that the cavalry would always be the cavalry; that the horse, however much it might be displaced elsewhere, would always be indispensable in the Army. Yet here comes an entire brigade of a once mounted branch of service rolling along on wheels, carrying gasoline and oil instead of oats and hay for fuel to move its machine guns and antiaircraft weapons!

"The Columbia Daily Tribune," Columbia, Missouri, October 6, 1938:

Far removed from active battlefields, civilians turned out by the hundreds to watch the brigade of 2,099 men and officers traveling in 638 machines. It was an exciting event, and the spectators participated in it with all the enthusiasm displayed in former times when the circus came to town.

First they saw the Headquarters Troop, composed of 61 men and officers in private cars, and a line of motorcycle scouts. Following these came the long line of trucks, tractors, reconnaissance vehicles, scout cars, tanks, 75-millimeter howitzers and other field pieces stretching down the highway for 17 miles to the famous first Cavalry unit which brought up the rear of the outfit.

On every side visitors were met by enlisted men who answered their questions with unfailing courtesy. Ostensibly, Columbia was the host to the Army. Actually, the cavalymen were hosts to

Fort Riley Maneuvers

hundreds of Columbians who were received with a hospitality which demonstrated that the Seventh Cavalry Brigade, while ably equipped for the grim business of war, is equally versed in the amenities of peace.

"St. Louis Globe Democrat," October 6, 1938:

St. Louis is fortunate to see such a line of march and to note that while some of the equipment may rumble in passing, none of it lumbers. Even the light tanks which are called combat cars are too light-footed for that, and show remarkable speed in spite of tractor treads. And they, casual notice indicates, are the slowpokes of the brigade, which is made up of armored and turreted reconnaissance cars of an earlier experimental type, more modern armored and open-topped scout cars, tanks, artillery units which are half wheeled and half tractor, various radio-equipped command cars, travelling machine shops, wrecking, cargo, rolling kitchen, welding, light repair and spare parts vehicles. To say little about motorcycles beyond easy count.

"Kansas City Times," October 8, 1938:

But it is to be doubted that such a force will be called on to operate independently in all cases. The American army is not willing as yet to concede that the horse cavalry has become obsolete. A picture of war in the future with armies entirely on wheels, and the horse relegated to a minor rôle in the rearward areas, has been drawn by some European military commentators. They are talking about mechanized infantry, as well as cavalry and artillery. In some foreign armies, particularly the German, the mechanical trend has been very definite.

The official army attitude is expressed by General Herr in this manner: "It is believed that in the United States the organization of these two types of cavalry is such that they supplement one another. Together they should make a strong, hard-hitting, independent combat force, entirely capable of performing the traditional American cavalry rôle.

The siege-like operations on the Western front in the World War undoubtedly gave rise to a popular belief that horse cavalry no longer had a place in modern warfare. But a study of the campaigns on the Eastern front and in Palestine will show that the mounted soldier played a tremendously important part. Moreover, at the beginning of any large-scale war, it is vitally necessary to have accurate ground reconnaissance before the armies become locked in battle. The airplane, of course, is another reconnaissance, or information-finding element to be reckoned with. But the horse cavalymen can go through a forest in a fog and bring back the desired information. In that particular situation neither the airplane nor the mechanized vehicle can do an army commander any good.

"Lawrence Daily Journal-World," October 10, 1938:

It was noted that anyone who wished to was allowed to take pictures of the equipment of Uncle Sam's mechanical cavalry. If any of the pictures get abroad they may serve as reinforcements of the army. Even a picture would impress the observer with the idea that the iron cavalry constitutes a potent defensive unit.

"The Boonville Daily News," October 7, 1938:

With the exception of Boonville, Cooper and Howard counties World War Veterans, many residents in Central Missouri have never before seen a modern fighting unit of such strength in the United States or any other army. Even the veterans have not seen a fighting unit of this calibre and kind. At least part of the equipment was as new to the veterans of twenty years ago as it was to those who were only Boy Scouts and sold Liberty Bonds during the World War. Some of those boys who sold

Liberty Bonds almost a quarter of a century ago are probably serving in the new, modernized unit.

Using the customary Army strategy, the unit arrived here a little ahead of time. It recalls to mind the statement of the Civil War commander who said that victory is usually determined by the commander "who gets there firstest with the mostest men." Scouting units went through Boonville almost an hour before the main force began to arrive shortly after 7 o'clock. They were scheduled to arrive here at 7:20 A.M.

"Kansas City Journal," October 10, 1938:

In its brief sojourn in Swope park, the 7th mechanized cavalry brigade made a friend of Kansas City. There is no brass-hat atmosphere about it. Its efficiency was apparent even to those without military experience. The many thousands of visitors who asked uninformed and curious questions concerning the brigade's modernized equipment found the officers and enlisted men to be courteous and patient. The high quality of the personnel was generally commented upon. If this brigade is an example of what the country is getting for its national defense expenditures, the money is well spent.

"Kansas City Journal," October 15, 1938:

The difference between a cavalry combat car and an infantry tank has been expounded. Although the vehicles are the same, with the exception of two turrets on the tank and one on the combat car, the cavalry regiment is a self-contained unit, containing the reconnaissance troop, fire-power in the machine gun troop, protection from enemy ground observation in the mortar platoon and great striking and fighting power in its two combat car squadrons.

A few months ago General von Schell of the German mechanized force rode in a combat car belonging to the 13th Cavalry, and at the end of his ride said the American combat car was far ahead of the armored vehicle of any other country. The mechanized brigade has one combat troop powered with Diesel engines and hopes experiments here will lead the way to even better performances.

The squadron yesterday demonstrated its ability to travel over practically any terrain on the Fort Riley military reservation. On open ground, traveling cross-country, the cars sometimes attained a speed of twenty-five miles per hour. Traveling through the woods and brush of Magazine canyon the vehicles slowed down to ten miles per hour and found nothing to stop progress. Ditches and banks were negotiated without difficulty, and any trees too large to be ridden down were circled with ease. The attack was viewed by the assembled students and several hundred civilian guests.

"Kansas City Journal," October 21, 1938:

Horse cavalry will not be replaced by motor equipment in wars for a long time to come.

Such seemed to be the conclusion of reviewing officers here today as horse cavalry demonstrated its weapons and fire-power to visiting officers who had been paying attention mostly to mechanized cavalry, represented by the 7th brigade from Fort Knox.



Annual Meeting

The annual meeting of the United States Cavalry Association will be held at the Army and Navy Club, Washington, D. C., at 8 PM, Monday, January 16, 1939.

Formal notification, together with proxy cards, will be sent to all members of the Association within the continental limits of the United States. Members who will be unable to be present are requested to return the proxy cards promptly to the Secretary, United States Cavalry Association, 1624 H Street, N.W., Washington, D. C.

The Horse in War*

By MAJOR J. R. J. MACNAMARA, M.P.

Anyone who has honoured me by reading previous writings of mine on the subject knows that I am no horse snob as such. In India, when I served there, I enjoyed riding immensely, as I still do at home. At the same time, those long Indian evenings, when otherwise intelligent men and women discussed nothing but the numerous complaints of the horse, filled me with horror. For human beings one was supposed to know the rough remedies if they were in distress—aspirins for headaches, pills for the stomach, and so on—but for the horse one was supposed to be as knowledgeable as a veterinary surgeon, and one had to know his every part by its technical name. High in the social circle stood the man who could rattle away unerringly on spavins, and fetlocks, and ringbone, and cholic.

Recently, however, there has been a swing in the other direction. The world—not any one country, but the whole of Europe—has risen in rebellion against the rule of man by the horse. Sympathetic with the original murmurings, I am not sure that the rebellion has not gone too far, anyway as far as the British Isles are concerned. England has always had much to gain as well as lose from the horse. Even though her own countryside may be intersected with roads suitable for motor vehicles, it does not follow that her whole Empire is likewise served. To Ireland the horse is a source of revenue. The Irish have been world-famous as horse breeders and horse masters. What happens to the horse in foreign lands affects the livelihood of man himself in Ireland. Let us examine, for instance, what the British Army is doing. It has gone in for a wholesale policy of mechanization and motorization. The horse has practically ceased to exist for war purposes. In the whole Army there are now only two line and one joint household cavalry regiments left. All the regiments abroad have been converted into light tank or the like units. Even the Indian Army has been pressed to start converting its native cavalry units likewise. Oddly enough, one sees more horses in the infantry now than in the cavalry, for a certain number of chargers are retained for the use of the officers. But even these, I understand, would be withdrawn in war and used to mount the few horsed yeomanry units still left. Except for one battery of horse artillery kept for ceremonial purposes the artillery has no horses either.

Why is this? It is because the General Staff is obviously thinking of all future wars in the terms of the last Great War in France (although they seem to forget what happened in Palestine). But all future wars may not be like the last Great War in France. In 1928 I fought in a sham war, the grand manœuvres of the Northern Command in India. Two armies faced each other. Our enemy were supplied with all the then latest developments in mechaniza-

tion. We were the old-fashioned force, relying on an assortment of mules, donkeys, bullocks, horses, camels, and even elephants to bring us our supplies. The day the manœuvres started it rained. It rained as it only can rain in the East. A sandy river bed, bone dry, in 24 hours changed into a raging torrent several hundred yards wide. The mud was of the sticky variety, which clings and clings until one frees oneself with a kick and a shake. We, with our old-fashioned transport, never missed a meal; we had our blankets at night and our greatcoats. The enemy, on the other hand, soon were streaming over to our warm fires begging us to give them something to eat.

Equally keen on mechanization, France and Germany, on the other hand, have decided nevertheless to make full use of the horse, too. Both countries are buying horses, Germany as hard as she can, and sometimes paying fabulous prices for them. Japan has used cavalry to advantage in China; but most important of all we should study what is happening in Spain.

In the Spanish Civil War neither side spurns the horse. On the contrary, I think it fair to say that Gen. Franco places more reliance on his horsed units than on any other. Both sides have tanks of all sizes, but these tanks have been found to have their limitations, and they are not feared nearly as much as one might think. Gen. Franco, with considerable success, seems to use his horsemen as what we would call mounted infantry rather than cavalry, that is to say that they bear the main brunt of the battle (probably by then dismounted), and are not used for merely reconnaissance purposes. Cavalry can, so it has been shown in Spain, coöperate effectively with aircraft. They are mobile and can spread over a wide area, and can follow up and exploit aerial attack. They have the advantage, furthermore, of being able to move with ease at night without lights and without noise. Finally, they can live on the country, which mechanized forces never, or at least very seldom, can do. And when you think that a modern aeroplane needs roughly twelve gallons of petrol per engine per hour you begin to realize the immense problem that the supply of mechanized forces will entail.

I often wonder whether in troubled areas such as Palestine the army commanders would not find it much easier to keep law and order if they had at their disposal adequate numbers of horsemen. There is so much they can do which the tank can never do.

What one must insist upon is a sensible, balanced outlook in these matters. At one time the horse ruled supreme. Now it is the reverse, and our present leading lights would not hesitate to exterminate the horse altogether. The truth is that mechanization and the horse should not compete with each other; they should be considered to be complementary. Somewhere there is a balance without rushing to extremes. It is the balance we want to strike.

*The United Services Review.—England.



Crazy Business

By PETER B. KYNE



PART VIII*

A very smelly outfit disembarked in the rain at Le Havre and on the dock we had a British army breakfast. Now, in the matter of tea I will declare, with my last expiring breath, that John Bull knows how to brew it, but when it comes to making coffee I'm strong for having a provost guard take John and drop him off the dock. Never will I forget that breakfast at Le Havre. *Jamais, jamais*—as we say in France. Weak coffee and So-and-So's Puppy Cakes. No! Oh, yes! You can't fool me on So-and-So's Puppy Cakes. I've raised too many puppies. And I ate one now in order that, should I survive, I would in the days to come, have more tenderness for my dogs. I've never fed So-and-So's Puppy Cakes since!

The sun came out strong and we had a long, hot steaming march up a long slope to a British rest camp. Ah, *mon pauvre soldats*. How aromatic they were. The instant the troops were dismissed and details started for the warehouse to get out blankets, the officers yelled to the strikers to dig up their bedding rolls. My pal and I found ourselves in a hut just large enough to house two St. Bernard dogs. They really were glorified dog-houses. Having settled myself I went forth to see about bathing my battalion—and the first thing I noticed was that my efficient young commander of B Battery, forgetful that the men had had a horrible night in the choppy channel, a hard march in full pack, weak coffee and So-and-So's Puppy Cakes for breakfast, *was going to put on an inspection!* I sternly bade the young man to leave the men alone and go to his doghouse and, if he was a praying man, to beg God for the great boon of an understanding heart.

On my prow for a bathhouse I found quite a sizable one, but the door was padlocked and a little British Tommy, from a bantam battalion, was on guard before the door. When I asked him how one went about getting his troops bathed he very respectfully referred me to the British major commanding. "There 'e is now, sir, sittin' on the bench in front o' that little 'ut."

I found the major, a heavy, red-faced, dull-looking man, sitting on a bench prodding his swagger stick into the gravel. I walked up until my boots were not six inches from the prodding end of his stick and waited for him to look up. His line of vision cut me from the Sam Browne belt down, but, being English (never say British when you mean English, because if you do you cast an aspersion on the Colonials who have nice manners) he rudely declined to look up until I spoke. I introduced myself and

respectfully asked his permission to use his bathhouse to bathe my very odiferous battalion. He declined very abruptly and I said: "Sir, at the risk of appearing impertinent, is it permitted to inquire why?"

He then informed me that the preceding Saturday those blackamoor fellows of ours—"you know, the negroes that unload your ships"—had, upon arriving at their barracks in camp at five o'clock as usual, discovered that white troops in that morning had used up all the hot water, in consequence of which the blackamoor fellows had been euchred out of their vapor bawth. And it should not happen again. Most unfair. Jolly well see to it no injustice done worthy men merely because they were black.

I complimented him on his sense of equity and reminded him that it was now but 10:00 AM, and if he would permit me to use his bathhouse I would leave a detail to fire up again and police the place and guarantee plenty of hot water for the blackamoors when they got home at 5:00 o'clock. But he declined. That was his story and he was going to stick to it and presently he growled. "That'll do, sir. 'op it."

So in a great rage I 'opped it around the other end of the 'ut and found the side open with a long counter behind which stood an old British sergeant major with Boer War ribbons. I had an inspiration. "Sergeant Major," I said, "Good morning to you, and be good enough to hand me the key to the vapor bawth."

"Certainly, sir," said the sergeant major, always obedient to superior authority, and handed me the key. I fled with it to find Snooper and presently Snooper found me and looked daggers at me. "Sir," he said, "these men must be bathed. What have you done about it?" Good old Snooper! I was glad he couldn't bawl *me* out! I told him I had the key but lacked permission from the major and, just as I suspected he would, Snooper said, "the hell with the English so and so. Let's go."

"There is the Tommy to be considered," I warned. "He's armed, Snooper, and you know how sensitive a British sentry is about his rights. Besides, I'm sure he doesn't like Americans."

"You bring the battalion over double-time, sir," said Snooper, "and I'll take care of the sentry."

He did. I knew he would. He walked up behind the poor creature, grasped him around the middle with one powerful arm, clapped a hand over his mouth, leaned backward until his body formed an arch, onto which he lifted the little Tommy and walked around the corner of the house with him, rifle and all. In an angle between the bathhouse and a tall board fence—a sort of dead end—he

*See Editor's Saddle.

set the Tommy down, took charge of his rifle, gave him a cigarette and bade him use his common sense.

Meantime I had the first sergeants boiling out the two batteries. I undressed in my dog-house and ran across to the bathhouse, opened and entered. Five minutes later I was working the hot water shower lever while the top sergeant worked the cold water lever, and a buck slapped a handful of soft soap on the head of every soldier as he entered, after undressing outside.

I fed them through that bath like link sausages and had about sixty left to bathe, when our adjutant arrived, to ask: "Captain Kyne, what are you doing?"

"Bathing my battalion," I shot back at him.

"The British major in command here has been up to see the colonel and has raised hell. He says you stole his key and got in here without authority. Is that so? And he says you've stolen his sentry. Is that true?"

"None of your business. All I know is that it will take the British Army to get me out of here before my battalion is clean, sweet-smelling and happy again."

"The colonel directs that you report to him instantly."

Naturally I bathed my sixty men and myself, dressed, went back of the building and relieved Snooper on guard, so he could bathe. Then a detail arrived to police the place and fire the furnaces and I said to the Tommy:

"Soldier, you've been treated abominably. Your honor has been traduced and shot full of holes. Would this make your spirit whole again and render you stupid and blind?" And I handed him a five pound note. He grabbed it and said: "Thank ye awfully, sir. Gor' blime me, I'd let meself be kidnapped every dy for five quid."

"Are you sure you were knocked unconscious and never saw the brute that abducted you? That when you came to your senses back here you were quite alone?"

"Quite, sir, oh, quite."

"The sun," I said, "will never set on British soil while stout fellows like you wear the uniform. You are a splendid soldier and your major is an ass. Have a La Corona Corona Perfecto on me."

I reported to the colonel, but before he could give me the rawhiding he had prepared for me I rawhided him. I told him I was amazed that he, a colonel, would permit a mere English major to outgame him, that it was his duty to see to it that his regiment was bathed and he had failed the men who trusted him. Not so with the first battalion! Never let it be said that any Englishman could put the skids under this descendant of King Cormac the first, of Connaught, and the hell with him. Come over and snell my men. Attar of roses and spices of Araby and all that sort of silly thing, y' know. Why not rouse out your other battalion commanders from the hay, colonel, and order them to put their troops in a sanitary condition? Why, I had never heard of such outrageous treatment of enlisted men!

"Report to the American adjutant of this camp," thundered my colonel, anxious to get rid of me and now aware that he had permitted the English major to run a blazer



"A little British Tommy, from a bantam battalion, was on guard before the door."

on him, so chagrined he neglected to take offense at my outrageous conduct.

So I reported to a second lieutenant about twenty-two years old and made him stand to attention to me while I tore his tail off before he could start work on mihe. I regret to state that I made the poor shavetail weep with rage. He promised to make my action the subject of a special report to the commanding general of that area, but I said: "Fly at it, kid. He'll call me over and shake my hand and we'll have a drink together. Then I'll report



"Report to the American adjutant of this camp," thundered my colonel.

you to him, Useless, and have you sent up to the front."

And that was the last I heard about my bathhouse raid.

We remained two days in that British rest camp and, though I eyed the bathhouse anxiously I never got another chance to use it. Neither did the remainder of the regiment. Nobody was permitted to leave camp, but we all knew there was an exception to that. And there was. The chaplain and his two sons, privates in Headquarters Company, were permitted by the colonel to go down and investigate Le Havre. The colonel spent all his time down there. The day we were to leave I, in command when the colonel was not present (our lieutenant colonel and the majors had gone on before to attend some sort of field officers' school), had the regiment in heavy marching order and lined up in column of batteries waiting for the colonel to come up from Le Havre and lead us out.

Suddenly our chaplain came scuttling through the gate like a fat old duck. He, I knew, was the pilot fish that precedes the shark. So I got the lads up and in pack just as the adjutant and the chaplain came over to me in wild excitement to inform me that the colonel was due in about five minutes with Mr. and Mrs. Brand Whitlock. Mr. Whitlock was, at the time, Ambassador to Belgium,

which had established its capital near Le Havre. And we were to have a parade in honor of Brand Whitlock, and how was an ambassador received by troops?

"Well, for the present, I'm in command," I told the adjutant, "so there will be no preparation made for a damphool parade by men in heavy marching order and all set for a four-mile march and no time to lose if we are to catch the train to wherever we're going. However, I'll give Mr. Brand Whitlock a regimental present and the massed bugles will give him three flourishes."

"Is three the right number?"

"How do I know? How does Brand Whitlock know? He will not even know we're flourishing him. Three he gets."

Old Swede Krantz had converged on this excited colloquy and now in a spirit of wanton mischief he said: "Peder, you are wrong. Ve should gif de Ambassador six flourishes, de same as a Lieutenant-Yeneral." And the old wretch winked at me. "I'll split the difference with you, August," I replied, and give him three flourishes and a tootle."

"I'll give him four," said the adjutant.

"You'll give him nothing," I corrected. "Who are you to give anything? You're only an adjutant. I give the

orders and you're my mouthpiece. You're a staff officer and can not command troops."

I rallied the field music and as the Ambassador came through the gate we gave him three flourishes or ruffles or something. He and Mrs. Whitlock and our colonel then came over and I saw that the colonel had had a very good luncheon on the imprisoned laughter of the peasant girls of France. So I ordered PRESENT, ARMS! The colonel came over and stood looking at us and trying to think of something. I held the present, awaiting his salute. Finally he yelled: "PRESENT, ARMS!"

So he was taking over command! Nothing, of course, happened, *because the regiment was already at the present!* Ensued a silence, a horrible suspense, while the old man tried to figure out this apparent disobedience. So he gave the order again—and again nothing happened. I couldn't risk him any further so I bawled ORDER, ARMS! AT EASE! The colonel blinked, frowned at me and backed away. The officers were then ordered front and center and we were all introduced to Mr. Whitlock. The moment I shook hands with him I left and went back to my post; presently came the chaplain saying: "Why haven't you shaken hands with the Ambassador? He wants to meet you especially. He's asking for you."

"I've shaken hands with him," I replied, "and you get the hell out of here. You and your sons are bad for discipline. Why do you continue to solicit special favors for them and yourself?"

He fled, and presently Mr. Whitlock, as lovable and charming a gentleman as ever lived, came over and spoke to me. He, it will be recalled was also an author. But the colonel butted in and took him away. We were to have music, it seemed. I groaned. The band instruments were all loaded in a truck deep under barrack bags, and now Sergeant Povlosky, late of the 4th Field Artillery and a grand old soldier, but on occasion capable of amazing profanity owing to his long association with pack mules, was tolled off to unearth the instruments. Now Povlosky had a voice like a bull of Bashan. His whisper could be heard a block. And in a wild rage now, he sounded off! Mrs. Whitlock blushed and I whooped at Povlosky: "Pipe down, Sergeant Povlosky, pipe down." Old Pop looked over at me. "Beg your pardon, sir," he said mildly, like a moose calling his mate, "but the captain knows goddam well that this thing of making a band in heavy marching order lug a lot of blankety-blank instruments—"

"Silence!" I yelled, "absolute silence and a lot of it."

The band shucked its packs, played three pieces and then Mr. Whitlock insisted on escaping. So we marched out.

Once aboard the train the colonel issued orders that nobody was to get off the train, so, inasmuch as he had neglected to provide stops for an orderly communing with nature, naturally the men began boiling off at every stop. I was off, too, with my lieutenants, to see that the lads got on again, and up came the adjutant howling at me that I was permitting my battalion to disobey orders and to get them back aboard again. Naturally I explained

the situation, but he began ordering my men around and I profanely ordered him back to the rear of the train, or else. But he kept coming back and finally I went into the colonel's car and begged him to keep his adjutant out of my hair under the tragic circumstances else would he presently be minus an adjutant.

To my amazement, instead of ordering me to beat it, as usual, the colonel smiled at me, told me I was just a wild rapparee and a very great nuisance to him, despite which he liked me, and bade me sit down and keep him company. I begged to be excused, but he got stern then and said: "I order you to remain here." Outlaw that I was I was a sufficiently good soldier never to disobey a legal order, and I obeyed this one, although I believed it was given in order to permit the adjutant to have his will with my command.

At the next stop the adjutant climbed into the colonel's car and I saw instantly that something unusual had happened to him. He informed me that my first sergeant had treated him with contempt. "If that be true," I declared, "and I'm not going to take your word for it, I'll bust that sergeant flatter than the Camp Kearny parade ground. I've raised that man from a pup and taught him respect for officers. What did he say?"

It appeared he hadn't said anything. His offense had been silent insubordination. "I'll investigate at once," I declared, happy to have an excuse to appear to forget to continue to obey the colonel's order and remain in his car. He let me go in order to comfort his adjutant, I suppose, and I sought my first sergeant and laid the adjutant's complaint before him. "Yes, sir," he confessed, "I guess I did something like that to the adjutant. Some of the men had to get off, order or no order, and I was watching to see that they got on again, when the adjutant came up and bawled me out very harshly in the presence of my inferiors for permitting the men to get off. I stood to attention and listened, and then he told me that thereafter when men had to go to the rear they could do so in the car entrance while two men held them to see that they didn't fall out backwards. I suggested that he see my captain and issue his orders through that channel, because I couldn't turn the outfit into nurse-maids without the captain's authority. So he told me to obey him and I said, 'yes, sir,' and looked at him and with my eyes (this man had terrible eyes) informed him that his delusions evidently were due to a lack of sleep in his childhood, his rest having been broken by his mother's barking."

So I told the adjutant what my first sergeant had called him—with his eyes—that the eyes had it and that it was so ordered!

Two nights later we detrained in a terrific rain at Poitiers. An ambulance met the colonel to take him up town to a hotel and I was left in command, with orders to appoint one lieutenant to command each battery and one captain to command the regiment; the remainder of the officers were to follow the colonel up town to a certain hotel, while the regiment slogged after a French guide over into a field and pup-tented. So I said to the adjutant:

"Boy, you've been itching to command troops ever since we left Camp Mills, so here's your chance. Just to prove to you I have a heart, you will take command of the regiment and try tenting tonight on the old camp ground."

Believe it or not, he obeyed and was soaking wet and horribly cold all night and almost got pneumonia. The remaining commissioned personnel went up town and old Man Krantz dug up some good wine, but alas, not Chateau Margaux 1880, and we sat up all night and had a party and I made up dozens of unflattering parodies about every fool I disliked and we sang them to the air of that ballad about the girl Lulu, who, it will be recalled, was no better than she should have been. We breakfasted early and heavy and were lit again by eleven o'clock on a new drink — casisse-vermouth. The colonel and I pledged each other's health repeatedly and he seemed totally indifferent to the fate of his adjutant. We had a splendid luncheon and about three o'clock that afternoon went over to the troops and found them a sorry hungry lot—all but my men who had in their haversacks rations drawn at Le Havre against some such evil condition as had just occurred.

At sight of his unhappy adjutant the colonel completely forgot all the cordial things we had said to each other all morning over our casisse-vermouth. He took it all back (for which I didn't in the least blame him) and on the spot demoted me, with considerable temper, from command of the battalion. I have always thought the old hero believed I yearned to command a battalion and that the loss of such command would, by me, be considered a reprimand. Whereas, all I wanted was to get back to my own battery and see what my executive officer had done to it during my long absence, for I sniffed woe. And now, at last, to my great joy, the colonel had blooeyed me back to command of Battery A. "And get out of my sight," he ordered further. This was nuts to me so I asked him to indicate the road and I'd do a disappearing act *my* *pronto*. He did and away we went to a village called Migne, a lovely little hamlet snuggled deep in the Auxanches Valley, with the Auxanches River flowing through it in still deep pools and an ancient mill near the bridge at the end of the street—a mill that went clack! clack! clack! all day long and reminded me of Zola's marvelous description of the defense of the mill in the Franco-German War.

We reached Migne about sunset, made a fire in the village place and raided a supply truck that was indiscreet enough to pause near us. The driver said he had no authority to issue us rations but I told him to use me for authority and robbed him, but was decent about it. I gave him a receipt. We cooked supper and the battery quartet started singing to the air of In The Good Old Summer Time a slightly Rabelaisian parody invented by Mess Sergeant McCluskey, who had a truly remarkable gift for funny parodies. The soft September twilight flowed over us; the outfit was happy because I was back and I was happy because I had it back. Why, I thought, shouldn't a man still under forty and possessed of all his

heads and legs and arms and a reasonable modicum of belligerency and a sense of humor, be happy soldiering? I felt that I would rather live this life than write a dozen novels that would outsell the family Bible.

I had an adorable, beautiful little French girl about eight years old sitting in my lap while I fed her from a tin of sweet biscuits I had, on the off chance that I might meet some child who'd like them, purchased in Liverpool. For each cake I now drew from this adorable elf a big hug and a kiss, while her mother experimented with the army ration and found it good. The mess sergeant was so amazed that any human being, in his or her senses, would exclaim delightedly over canned Willie that he gave her a big can and a loaf of bread. Then he looked at the child and tossed in a jar of strawberry jam and when I nodded my approval he went hog wild and came through with a can of bacon drippings and a segment of bacon. He believed in scattering little seeds of kindness.

About 8:00 o'clock the remainder of the regiment came in and I was never able to ascertain what delayed them three hours. Maybe the colonel took his adjutant back into Poitiers to feed the poor hungry devil and buy him a few jolts of casisse-vermouth. Something happened, for there was no town major to assign us to billets so the regiment went over into a field to pup tent it for the night. The colonel stood at the gate leading into this field and howled his regiment into column of batteries perpendicular to rows of the hills of earth where some sort of crop—corn, I think, had recently grown. Of course, when ordered to pup tent it in that position the men would have had to sleep across these hills, which would not have been provocative of a wink of sleep and, in addition, would have been very hard on the small of the back. So I went up to the colonel and said: "Sir, it is unfortunate that the colonel didn't march down onto the field himself; if he had done so he would have discovered—" And I very respectfully explained the tactical situation. He blew up. "You're all the time trying to tell me my business," he shouted. "Clear out."

I did. The other battery commanders obediently pup-tented in the positions in which the colonel had placed them, but I waited until the colonel had returned to the town; whereupon I marched my outfit a quarter of a mile and bivouacked in a pasture where the grass was long and dry and soft. My men couldn't go to sleep for laughing as they considered the sorry plight of the other batteries whose commanding officers were trying to be soldiers at the expense of a little common sense.

I reflected that night that common sense was a much scarcer commodity in the A.E.F., than most men supposed.

Migne is in Vienne and Vienne is the so-called chateau country and quite beautiful. The morning after our arrival I climbed into the belfry of the local church and found all over its interior and, indeed, on the walls of the nave of the church the undistinguished initials and monickers of troops that had preceded us in Migne. That night at retreat I preached to my men a homily on the



"So I knocked the Frog to a parade rest."

filthy habit and begged them to refrain from it. They did.

We spent three very pleasant weeks in Migne, doing absolutely nothing. A Madame De La Roche who had a big house and a large dining room organized an officers' mess for us and fed us well at a reasonable price. Each day my little girl friend met me in the place and bounded into my arms with lively expectations of new and wonderful things to eat and presently I was aware that her mother was following me around. Some of my bucks had told her I was an author; she was a Parisian newspaper woman who had fled up to Migne to escape the bombardment of Big Bertha, so she elected to claim a certain interest in me. One day she handed me to read and criticize a poem she had written. It seemed sort of queer to me so Old Pal read it and declared the lady had struck a Byronic chord aimed at me. Presently my lieutenants—all the lieutenants, in fact, commenced hazing me unmercifully about my low taste in femininity, for indeed, Madame was pathetically homely and not at all neat. I imagine I was a little slow on the uptake, for one night as I came down a dark grape arbor to the door of my billet—I stepped on something that let out a squawl, and b'gosh, it was Madame, squired by her fifteen year old son. They were waiting for me and had fallen asleep. Madame then tearfully proclaimed her love for me and I hooted at the idea and begged her to run along and forget it. I told her it was unmaidenly of her to roost on my front stoop at one o'clock in the morning but she countered by stating that since I would not come to her house she had no alternative save to come to mine. "Oh, fly out of here, madame," I begged the lady and she replied tragically: "Ah, how can one fly when one's wings are broken?"

I said, "Hell's fire, Madame, I didn't break your wings. It was some other fellow." The situation was most embarrassing because I considered her a virtuous enough creature but nuts, and, as she would not get off my stoop I opened the door and stepped in over her and left her there all forlorn. My landlord and his wife had been listening in and they came to my room in their nightgowns and looked me over by the light of two candles and said in French: "Sho, boy, sho," or words to that effect, and went into gales of laughter. My host was a retail shoe-dealer from Paris, also frightened up into Migne by Big Bertha and, like the cagey Frog he was, he had brought up a stock of shoes to sell locally. In the morning Madame met me with her angel child and Madame looked so unhappy I took them both up and bought each a pair of shoes.

The following week I met them both in Poitiers and couldn't resist buying the ragged little child a complete outfit, including an American overseas cap of small size, into which I pinned a captain's bars. I then bought ma a new dress and hat because, really, she looked like hell and needed them, and for this act of sweet Christian charity she assumed that at last my recalcitrant love was dawning. So just to prove to her how wrong she was I went to our commissary and bought quite a jag of cigarettes for her to send up to her husband, a major of heavy artillery

at the front, and her son by her first marriage, who was a sous-lieutenant of field artillery. I do not think she sent them. I think she smoked them herself.

When I got back to Migne that night—in a barouche, with Madame holding my hand all the way, I discovered we had received orders to move out in the morning. Madame discovered it, too, and that night I stepped on her again as I entered my billet. She wept and her child screamed in sorrow and upstairs I could hear madame, my hostess, murmuring to monsieur, her husband: "*Ah, mon pauvre capitaine.*"

They were waiting for me as the column crossed the bridge in the morning, so I got foxy. I put the outfit to attention and dropped back and kissed them both good-bye and nobody saw me. Madame exacted from me a wholly false promise to write and I gave her angel child some francs and fled after my battery.

From Migne we rolled down to a village called Madere, a few miles south of Bordeaux and hung around there three weeks doing nothing but not living a dull life by any means. We spent a good deal of our time on the piazza of the Cafe Du Bordeaux in the Place De La Comedie or eating in the Chapeau Rouge in the Rue L'intendance, as good a restaurant as ever I patronized. I had one slight adventure in Bordeaux. Arriving at the Cafe Du Bordeaux late for luncheon one day I decided to experiment with the wine of France, so I picked the most expensive dry red wine on the menu. Thirty francs. The waiter genuflected. He knew right then and there that I knew my wines. I did, but they were California wines and I always did prefer them to French wines. I still do.

When the waiter appeared with the bottle in a bassinet he had a napkin wrapped round it. He handled it with tremendous reverence. Of course, when he failed to hand me the cork to smell when he drew it; when he failed to show me the bottle so I would know I was receiving what I had ordered, I knew he was out to swindle me. I stripped the napkin from the bottle and lo, it was vin ordinaire. So I knocked the Frog to a parade rest. The proprietor ran to protect me from the waiter (anyhow, that's what he said later) but I didn't realize this, so I socked him and put him down. As choice a bit of Donnybrook as ever my Hibernian ancestors engaged in was rapidly brewing when an M. P. sergeant dashed in and took command. All hands were demanding my immediate incarceration so the sergeant said: "Sir, are you a mite soused?" I showed him the bottle and explained my rage, so like the good egg he was he socked the waiter with a number ten foot and ordered peace and quiet and explained the swindle to monsieur. Of course monsieur was probably in on the swindle, but he apologized and all ended happily. While I sipped my expensive wine half an hour later up came two well-known motion picture actors from Hollywood. They were bucks and recognized me from having seen me around studios where they acted. The wretches were broke, of course, so they borrowed five dollars from me and started to drink it up. When it was gone they came back for more and were refused. They never repaid and

made quite a point of not repaying. Told it all over Hollywood later how they had bilked me out of five dollars. However, I had my revenge. The talkies came along and ruined them forever.

I borrowed a shotgun from the master of a chateau where Old Pal was billeted and had some good partridge shooting in the vineyards there. And then a familiar cloud appeared on my horizon. It was Old Doc again. The regiment had run completely out of medicine—not a C. C. pill in sight, and my battalion surgeon reported this state of affairs to me, because he knew I'd make an issue out of it and Old Pal wouldn't. Of course it was Old Doc's duty as regimental surgeon, to keep the medicine chest full and here we were cheek by jowl against the largest medical supply depot in the south of France and the chest was empty.

I borrowed a bicycle and rode five miles to tie into Old Doc. I found him with the colonel on the lawn of the colonel's handsome chateau and asked him what the hell he meant by neglecting to supply my battalion with an adequate supply of medical supplies. He sputtered that he had put in a requisition but the blasted supply depot wouldn't fill it and he didn't know what he could do about it. So I said: "You ancient bonehead, get down to that medical depot at seven o'clock tomorrow morning and when they open the door barge in screaming: 'I want my order filled,' and keep on screaming until they fill your order just to get rid of you. If you do not keep on their tails they'll serve the doctors who do keep on their tails."

"But I haven't any transportation to bring those medical supplies home," Doc wailed. "We only have two supply trucks and they're busy day and night with other business."

"Hire a taxicab, you ass," I suggested, "at your own expense. Make trip after trip until you have the goods delivered. If one of my men should die for lack of proper medicine at the proper time I'll prefer charges against you and appear against you as prosecuting attorney. You're an incompetent of the first water."

Here the colonel took a hand. "You quit butting into the doctor's affairs," he ordered harshly.

"All right," I said, "then you butt into them. It's time you did. After all you and not Doc is responsible for this condition of affairs."

(To be continued)



The Army of the United States

It is a source of gratification to record also that during the past year our people seem to have come to a clearer understanding of the fact that our Army is purely defensive in type and non-provocative in outlook. The charge that it is militaristic, that its activities menace peace, is now rarely heard. The facts are, of course, quite the reverse. Our Army has never in the slightest degree contributed to the occurrence of any of our wars.

"Clear out," the colonel ordered. So I cleared out. Arrived back at my village I turned my borrowed bicycle over to old Chief Mechanic Whiffletree, the deaf man who read lips, and bade him go down to Base Six Hospital, ask permission to look at an operating table, make drawings of same and return to me prepared to build an operating table. Also he was to design and build a medicine chest of approximately a certain size, with drawers and cubby holes and what not.

Whiffletree was off like a tin-canned dog. The next day we went down to Bordeaux together and bought oak and rod steel and strap steel and hinges and screws which I paid for and carried home in a taxicab. Within a week Whiffletree and his assistants had made two swell oaken operating tables and our battalion surgeon said he wouldn't care to carve a man on anything better. Then I gave our surgeon a roll of francs and sent him into Bordeaux to purchase, at retail, in French drug stores, the medical supplies he would need for at least six months of warfare, and when these arrived we stowed them in the grand big medicine chest old Whiffletree had made us. Doc and I were proud as Lucifer of it, and Doc had also purchased two big carbide lamps with reflectors and Whiffletree fitted them with a sort of miner's candlestick attachment so they could be jabbed into the wall of a dugout and shed a bright light on the operating tables. We also had a fifty-pound can of carbide.

Old Doc never got his medical supply requisition filled, and one day he sent an orderly up to beg fifty aspirin tablets from our battalion doctor, who said he couldn't fill the order because Captain Kyne owned the aspirin tablets. And Captain Kyne was dog enough to decline to give up any of his private supply of aspirin tablets. I was out about four hundred dollars in American money because of Old Doc's inefficiency, for I dared not trust him and I would have felt guilty if I had gone up to the front without the proper facilities to give my wounded men a break.

One evening we got on a train and started for Clermont-Ferand to enter the heavy artillery school there, which was the first intimation we had received in six weeks after landing in France that we were actually known to the authorities and might hope, eventually, to get up where all the shooting was.

Throughout its entire history it has remained consistently within the field assigned to it by the Constitution—always wholly subordinate to the civil authorities. It has jealously guarded itself against political connections of any nature. It has remained true to its traditions—withdrawn and aloof in peace; a forward, dependable bulwark in war.—General Malin Craig, Chief of Staff (*Annual Report, 1938*).

Propaganda and The News

By ROBERT AURA SMITH*

Some time after the World War quite a number of persons woke up, with a shock, to discover that they had been "taken for a ride." To their dismay and chagrin they realized that they had believed a number of things that weren't exactly true, and worse yet, that they had believed them because someone set out in a systematic way to make them believe. Some of them had proved to be "suckers" of the first water.

The revulsion would not have been so drastic had there not been, before that time, a half-grown American tradition of the sacrosanctity of the printed word. Things had been repeatedly proved, to everyone's satisfaction, by the mere fact of their having appeared in print. "If it was in 'the book' it was so."

As a result, the reaction gave birth to two cults that have achieved a fairly wide distribution. The first is the famous "You can't believe what you see in the papers" society, and the second is the coterie of the boys who supply "the news behind the news." Many persons think it a mark of intellectual superiority to belong to one or the other group, or both.

The working newspaperman knows that they are both what he calls "phonies." To the person who laments his inability to be guided by the public prints he is likely to retort, just a bit acidly, "Well, quit reading the tabloids and buy a newspaper for a change. If you can't believe what you read in the papers it is your own fault for reading a rotten paper." And there is more than a little merit in that point of view. There is a surprising number of newspapers in the United States that make an intelligent, diligent and expensive effort to get the facts straight. Their batting average for factual accuracy, over a period is higher than is often realized by persons to whom one mistake outweighs a hundred times of being right.

The second group, the "inside story" addicts, is more insidious. Presumably it operates to keep honest souls from being fooled again. Actually it is a racket that lives on the credulity of persons who are determined not to be credulous. The "inside" story never has the disadvantage of being obliged to conform to the facts. Indeed, it is more readily believed if it distorts or manufactures them.

There are, at the present time, in this country several periodicals whose success is dependent upon their ability

to present a different version of any situation that is believed by the vast majority of persons to embrace certain well known factors. It doesn't matter in the least if the version presented is correct. It is only required that it be different, and therefore have the aroma of "deep stuff."

In the vast majority of cases the facts can be found and can be published. Two great press associations in the United States and a respectable number of good newspapers employ a large force of reliable and trained men whose business is to find the facts and to present them. They cover the field well enough that there isn't enough "inside stuff" to keep the news-behind-the-news boys in a job without plenty of invention.

To the person who really yearns for the "inside story" of anything that concerns public affairs, the working newspaperman has a ready answer. "If you want the news behind the news, there is one safe and sure place to find it . . . on the front page of any metropolitan newspaper that is worth publishing." The good newspaper stays alive by virtue of a sustained effort to present *all* the news, including the inside.

It is obvious that the person who really wants to form an accurate picture of what is going on in the world must be able to strike a happy medium between infantile gullibility and jaundiced cynicism.

One of the useful adjuncts to the process of striking that medium is the ability to recognize propaganda when it puts in its appearance. The word propaganda is used here primarily to indicate written and printed propaganda and does not include the effective forms of directed opinion by such media as the radio, the public address, or simple word of mouth.

One of the first things we need is a working definition of propaganda. The idea that it embraces any attempt to influence opinion and judgment is too large for practical purposes. What we are talking about is what might be called "illegitimate" attempts to influence opinion and judgment as distinguished from the normal and quite above-board efforts to present a convincing case.

These may be distinguished by their source, distribution and character. Propaganda, as we see it, is an attempt to influence opinion and judgment, coming from a source that is either paid or established in public policy, using abnormal methods of reaching its mark, and making no effort to present both or all sides of a case at issue.

*Second Lieutenant, M.I. Reserve, Cable Desk, New York Times.

Can You Evaluate Newspaper Intelligence?

Let us examine those three elements briefly. The paid press-agent is the simplest propaganda source. Nowadays, however, he has grown into a "public-relations counsel" and his functions are slightly more complex. In identifying him as a propaganda source, however, the most useful test to apply is this: does his living depend upon his presentation of this case in one particular light, and from one point of view only? If it does, it's an odds-on shot that he is a propagandist. The same test holds good, in a wider sense for government bureaus and functions. Does their existence depend upon their willingness to sustain and present one point of view? Would they be "liquidated" if they offered any other? That goes also for Chambers of Commerce, Institutes of Research, Committees "On" or (much more common nowadays) Committees "For."

The next mark of the propagandist is the effort to use methods of distribution that are abnormal. There are many commonplace channels for the presentation of argument and opinion. The appearance, in those channels, of what might normally be expected there, is not necessarily propaganda. Let's take an example. A publication like the *Nation* or the *New Republic* is a well-known "left-winger." A sturdy left-wing presentation of a case, say, on an industrial issue appearing on such pages should cause no particular surprise. If, however, such a publication, or some interested person or group, buys advertising space in a conservative newspaper to reprint that left-wing article, the same thing automatically becomes propaganda. Take another case. A Congressman has an axe to grind and makes a speech. His thumping periods delivered on the floor of the House or even enlivening the chaste pages of *The Congressional Record*, can hardly be called propaganda. But when that same Congressman franks out 10,000 copies to his palpitating constituents he is a propagandist, pure and simple. The method of distribution is the determining factor there.

Frequently the most difficult form of abnormal distribution to nail down is the masquerade of propaganda as news. Here's an example of that; in the ordinary course of events stories about apples don't exactly flood the front pages of the newspapers. But along comes National Apple Week, and all the papers get "apple-conscious" and print recipes, production figures, shipments, notes on refrigeration and photographs of miscellaneous and assorted shapely apple queens. Apples aren't that much news. It's propaganda. And the same thing goes for little Elmer who is the dynamic blocking back of Tecumseh College and makes a gilt-edged bid for All-American honors. Elmer who lives and goes to school out in Iowa isn't that much news in Philadelphia, New York and Boston. It's propaganda.

This masquerade of propaganda as news, while it concerns distribution primarily, overlaps the other field in which the propaganda tests need application. That is the actual character of the material itself. It was noted in our working definition that the characteristic of propaganda is the fact that it makes no effort to present more than one side of a case at issue. That gives us a number of

danger signals that can be conveniently hung out.

The first is obvious. It is good sense to be wary of too one-sided presentations. If a situation is offered as all white or all black it's probably fictitious. Things don't happen that way.

For that reason, the intelligent reader wisely discounts official statements of governments in which no opposition is tolerated. Such governments do not wish to have two sides presented on any case at issue and therefore are logically suspect from the start. As a rule this bias, when it concerns official utterances, communiques or "hand-outs" is readily recognized. Very few readers would be likely to accuse Hitler or Mussolini of an abstract devotion to fact in their impassioned speeches. And no one expects, when he reads a statement from the official spokesman of the Japanese Foreign Office, to get an uninfluenced judgment on China.

Less easily recognizable, however, are the controlled press associations or news services. The Japanese have Domei, theoretically a news service. Actually it is an official agency of the government. Its "news" reports, therefore must positively be subject to discount for it is not free to report both sides. The better newspapers are fully aware of this and when they use a report from Domei they are careful to say, "Domei, official Japanese news agency, says. . . ." That is a polite way of telling the reader, "This may be fact, but we can't vouch for it. Be on your guard." The same situation exists in regard to Tass, the Russian agency, and in regard to Italian and German "news" services. The great British service, Reuter, does not come in this classification. It is at liberty to present the facts. Nevertheless the strong influence of British policy should make the intelligent reader skeptical of even Reuter when some very important element in British policy is involved. That, however, is not necessarily propaganda. It is likely to be sturdy British bias and needs to be marked down in precisely the same way that a Briton should mark down an American reporter who is dealing with a vitally American problem. The facts in both cases may be perfectly straight; the emphasis is likely to reveal "directional" thinking.

There are other "news" services and agencies whose function it is to send regular printed or mimeographed handouts to the newspapers in the hope that occasionally one will slip in as news. The better newspapers systematically file these contributions in the wastebasket. They are suspicious, and rightly so, of the character of subsidized news.

Somewhat similar to these are the "news" services that operate as adjuncts to tourist bureaus, state railways, government ship lines and state-supported chains of hotels. They purport to disseminate news. But their "news" is always only one side of a picture.

In this country we have also a full quota of trick "Institutes," for various metals, for sugar, for the cause and cure of war, or the cause and cure of peace, for free speech, for limitations on free speech, for the Spanish democrats, for the Spanish fascists, for Spanish olives, for the Anti-

Saloon League, for the Distillers' Association, for the Diet of Dogs and the Propagation of the True Faith of the Yogis. Their output is suspect and doubly so when it pretends to be news.

It is not a bad idea in watching for propaganda to be on the alert against all forms of mailing-list operations. If they had news to offer, and both sides of the news, they'd use the press and not the United States mails. It's cheaper.

It should be recognized, however, that an expression of opinion, or the presentation of an argument, as strongly as it can be presented, it is not necessarily propaganda. For the general type of legitimate argument, in the proper place for it, on one side of a case, we prefer the term "special pleading." Of course special pleading can be turned into propaganda, as has been pointed out, by abnormal distribution. But it can also be confined to channels that are eminently correct.

In the newspaper the place for special pleading, however, is not the news columns; it is the editorial page. Good newspapers keep their argument, opinion and "purposeful" writing there.

There has been, in recent years, on the other hand, a tendency to expand the "special pleading" department of the newspaper through the use of the columnist. The reader, swamped by columnists and commentators, will be wise to remember that they do not, or should not, purport to be fact. They are opinion. The newspapers that use them wisely sign them conspicuously so as to allocate responsibility and in some cases go so far as to make a printed disclaimer of any presumption of agreement with what is said.

Newspaper readers are often puzzled, therefore, to make the distinction between what is presented as fact and what is offered as opinion. It is not at all uncommon for a large newspaper to get hundreds of letters of protest because it has recorded, accurately and in quotation marks, the expressed opinion of a person with whom the newspaper itself may disagree violently on its editorial page.

Correct attribution of such expression to the proper source helps to minimize this confusion and the better newspapers are careful in this respect. Intelligent readers can help by watching punctuation, attribution to personal source, or signatures and making their own distinctions.

A difficulty is presented, however, in the signed news story. This differs from the "column" in that it attempts to be a presentation of the facts. The signature indicates, however, that it is one man's report on what he believes to be true. It may be conditioned by his own limitations of observation, his personal prejudices and the peculiar emphasis that he happens to desire at the moment. Newspapers, as a rule, are inclined to allow more latitude for this personal expression in the "signer" than in the anonymous news story. There are two reasons for this. The first is that the signature itself reminds the reader of the personal origin of the news story. The second is that reporters and correspondents do not, as a rule, receive the "by-line" or signature until their ability is proved and their accuracy tested. Sometimes a reporter or correspon-

dent attains sufficient eminence that the public actually wants to know what he thinks of a given situation and he makes his judgments and signs the story. The newspaper itself may not agree with his estimate at a particular point but allows him to make it. Of course, if they disagree too often, and the paper feels that his estimate is too much subject to personal prejudice or whim, he is fired.

The press associations, in particular the Associated Press and the United Press, do not, as a rule, sign their dispatches unless the correspondent is sufficiently distinguished that his personal judgment or his personal organization of the material is a matter of consequence. The vast bulk of their material is anonymous. That puts the burden for mistakes, not on one individual but on the organization as a whole. It is for this reason that the bulk of the "report," as it is called, stays away from opinion and evaluation and undertakes to verify its facts.

Now of course the effect that any given collection of facts has upon a reader is determined in part by the emphasis that is used. It is impossible here to get away from bias in the treatment of news. This is particularly true of newspapers with a decided political slant, for example. The New York *Herald Tribune* or the Chicago *Tribune*, to note conspicuous Republican papers, will write a quite different set of headlines on the outcome of an election than will staunch Democratic publications reporting precisely the same facts. Among the better papers, however, this slant or bias usually takes the form of the display of the news rather than coloration of the news itself. The same story, for example, on the outcome of one of the Presidential "purges," furnished by the same news service, was recently headed in a Republican paper, "Roosevelt Rebuked," and in a Democratic paper, "Independents Win." It is wise, therefore, before drawing too many inferences from the display of the news, to discover what is the particular bias of the paper in question.

In some classes of publications, there is, of course, a real distortion of fact. This is not unintentional slant; it is deliberate suppression or even falsification. Fortunately that is not common among the better metropolitan newspapers. The "canard," for example, a famous French journalistic device, is not employed by the better American papers. The canard is the publication, as fact, of something that the newspaper knows to be untrue, with the intention of denying it, as a mistake, in a subsequent issue. Its value in policy lies in the fact that the original publication will give currency to the idea and the subsequent denial will not suffice entirely to correct the original impression. The nearest that the better American papers ever come to that is the "playing down" of a correction of a mistake that was made in good faith. That sometimes happens. The bias comes in again, and a newspaper may have had a news story that fell directly into line with editorial policy and was accordingly given a big front page display. Subsequently the story proves erroneous, and unless the newspaper is one of a very few absolute top-rankers in integrity, the denial is likely to be on an inside page.

(Continued on page 547)

Bagging the Hedgehopper

By
CAPTAIN JOSEPH I. GREENE
INFANTRY



Can we shoot them down or can't we? If 1,000 bullets per second will do it, we can. But if we insist that Ethiopia, Spain, and China have marked the acme of infantry antiaircraft tactics, we had better be changing our doctrine, and changing it fast.

It is time we decided, one way or the other, whether the fire power of infantry is deadly enough to bring down hedge-hopping planes, or whether it is little more than shooting at swooping eagles with an air rifle. Ten years ago, we thought we knew. After long study and test at Benning, the conclusion was reached that infantry could, with its own weapons, shoot low-flying airplanes down from the skies. Further test and development brought forth ways to train infantry in antiaircraft fire. And these, in turn, came out in regulations and field manuals. A tactical textbook also appeared,¹ which told what we could expect from enemy planes attacking with bombs, bullets, and gas, and what to do about it.

The result of all this has been a universal antiaircraft awareness among infantry regiments of all components. On every maneuver, when the enemy's planes come roaring over in simulated attack, the infantry lets them have it right back again. Rifles, autorifles, machine guns, and even pistols, in every unit within sight of the tree-scraping planes, swing up to let fly at them. Every man with his finger on a trigger takes a hurried aim well in front of the winged attackers, with a hastily estimated lead. And if it were real war, the infantry would, at such moments, be filling the skies with thousands of bullets.

This is what our infantry does now. This is what it is trained to do to the point where its reaction to sound or sight of hedge-hopping planes is automatic. But is this what our infantry would do—or could do—in war itself? Is this what the infantry of present wars is doing? Are we, in other words, training our troops for effective reply to the vicious, thundering air attack? Or are we, as that acute and thorough critic of modern warfare, Major Thomas R. Phillips, Coast Artillery Corps, suggests,² “placing undue faith in the results of peacetime firing” at targets towed by lumbering planes at “ideal altitudes”?

Major Phillips is far from being alone in his opinion. There is, indeed, no side of modern warfare on which there is a greater diversity of thought, or on which argument can get more heated. For that reason, if for no other, it is time for a reëxamination of antiaircraft tactics.

In this article, however, it is intended to keep argument at the minimum and to fill most of the space with fact. These facts, the writer believes, will show that the infantry antiaircraft tactics now taught are in the main correct. Infantry should by all means let fly at attacking enemy planes with every weapon it has, short of hand grenades and trench mortars. And it shouldn't stop thinking about possible ways to use those.

That is what the main conclusion will be—because the facts support that conclusion. But first it should be made perfectly clear, right here at the beginning, that there is no intention whatever, in this article, of defending antiquated methods of troop movement. Reactionary doctrine

¹*Infantry Antiaircraft Defense*, Special Test No. 267, Army Extension Courses, used also at The Infantry School.

²“Air Power and Troop Movement,” *The INFANTRY JOURNAL*, May-June, 1938.

The air attack will shatter on the firepower of the foot soldier

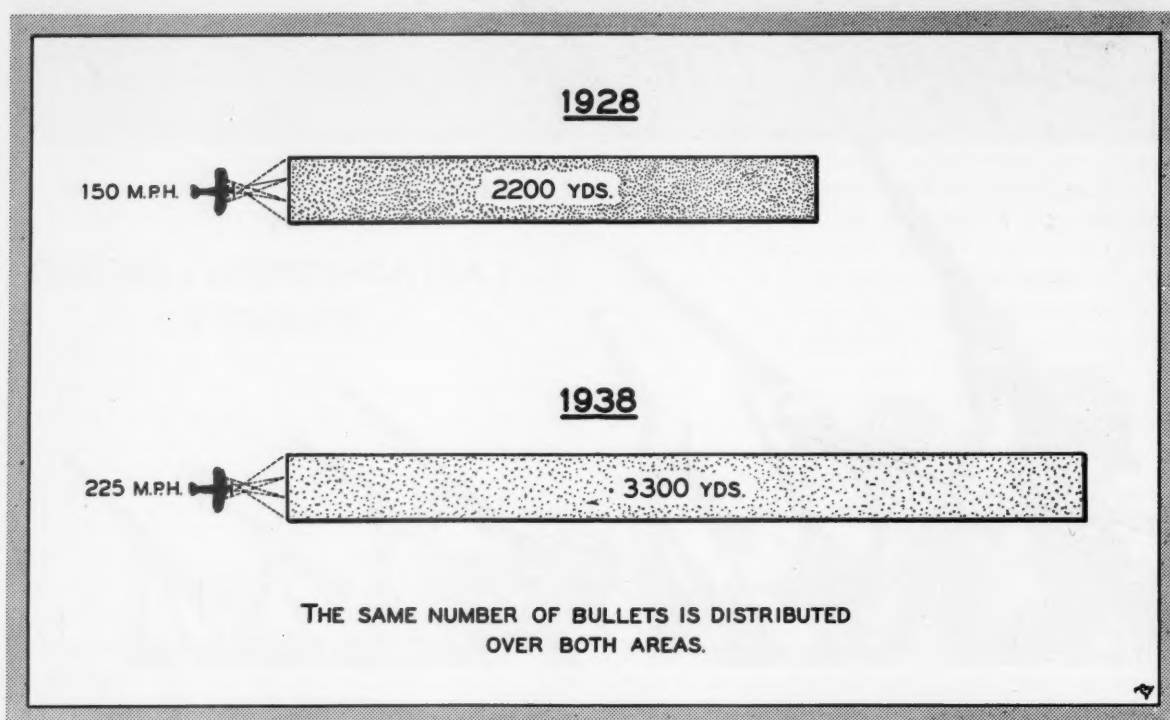


Figure 1. Machine-gun fire of attack planes is $\frac{1}{3}$ less intense than it was 10 years ago.

has grasped at active antiaircraft measures by infantry as a justification of ponderous movements of troops in the olden manner. If infantry can protect itself adequately from the air, so runs this thought of vintage 1903, it does not need to hasten toward battle in trucks; it does not need, when it must march afoot, to advance semi-deployed well into the fields and woods to the sides of the road, thus making itself a target thin and poor for the air attack, and at the same time retaining its tremendous and effective volume of antiaircraft fire. No! Since it can take care of the air attack, infantry must stay on the roads at two and a half miles an hour, no less—but also, no more! It must stay on the roads, deploying only a scant distance into the ditches and onto the shoulders when the air attack swoops down. And there, in a space too narrow for free firing and too crowded for reasonable safety from bomb fragments, it must do its stuff. It must stick on the roads, blasting at the air targets while receiving the full force of the air attack in a formation far too compact. Infantry must do it the hard way in order to preserve the scale of time and space that has been the standard since Hannibal hiked through Spain and Gaul.

There will be no defense of this attitude of mind in the paragraphs that follow. There will be no defense, either of interminable troop movements made over many hours in broad daylight. It will be assumed, instead, that infantry will use all modern means of movement, but will sometimes find no other way to get there, except in columns and on roads. For example, what if a brigade or two must pass by day through a defile where hostile bombs have temporarily blocked the road to passage by trucks?

As a matter of fact, if we examine closely The Infantry School text on antiaircraft defense, we will find it plainly stated that there must be no massed formations of infantry march. "For it is indeed true," this book says, "that the commander who exposes troops or vehicles in close-order formations to air attacks can expect the same results he could expect from the observed ground fire of artillery or machine guns." Thus, "... dispersion (in march formations) should be the maximum consistent with the accomplishment of the ground mission."

But the march formations which this text describes do not come up to these sound general principles. They are not based on modern war but on that of three decades ago.

In this same Infantry School text, and in articles which appeared in *The Infantry Journal* in 1928, and in others published since that time in *The Infantry School Mailing List*, the reasons why the fire of infantry should be effective against airplanes close to the ground have been thoroughly analyzed. But in ten years there have been improvements in attack aviation. And there have been wars. Isn't it possible, then, that the scales have tipped—that advantage has risen from the ground into the air?

For one thing, how much more deadly today is the vicious spray of bullets from the machine guns of attacking planes? Can infantry still take it? Or has it been doubled, or trebled to a point where no life can stay alive in its path?

Remarkably, what was written of the limitations of the fire of attack planes a decade ago is still sound. And more remarkably, that fire is considerably less intense now than it was then. For in 1928 the finest attack planes flew 150 miles an hour and carried four forward guns firing at a rate

of 1,100 to 1,200 rounds per minute. Today, these planes still carry four guns to fire forward and the cyclic rate is about the same. But today's planes attack at some 225 miles an hour, instead of 150. And this means that the bullets are spread over much more ground during each second of fire. (Figure 1). Where, at 150 miles an hour, a half minute's fire covered 2,200 yards, now, the same fire—the same number of bullets—kicks up the dust down a strip 3,300 yards in length. Thus the machine-gun fire of today's planes is one-third less than ten years ago.

It is also true that the far greater speed of today makes errors of aim all the greater, and makes it all the harder to follow a line of attack with accuracy. This affects not only the machine-gun fire that attack aviation uses to cover its attack, but also the dropping of fragmentation bombs. Planes fly so fast, nowadays, that their pilots simply cannot deliver accurately on ground troops the intense power of their attack. Accuracy, of course, is not so important in dropping bombs. These deadly eggs, particularly the parachute bombs, are dropped by dozens, and on open ground, spread their thousand fragments or more over a wide area. But ground is seldom without its irregularities, and the same humps and hollows that saved men from many a shell in France will go far to reduce the casualties from airplane bombs. And besides, they have to be dropped somewhere near the target to do their business. At 225 miles an hour a lot of them will go wide.

And now suppose we look at matters from the ground for a while instead of from the air. What new developments are there in the antiaircraft defense?

In the article quoted earlier, Major Philips makes an interesting statement about the effect of Ethiopian fire on Italian airplanes: ". . . 259 were hit by fire from the ground but only 8 were brought down." It is the author himself who stresses his point—a ratio of roughly 32 to 1—by italics. This seems a strong indication of the futility of ground-troop antiaircraft fire. But there is more than one way of looking at this statement, and it deserves a full examination. First let us note that the total rounds fired, and planes fired at, are needed for any extensive analysis.

Since there are few accurate Ethiopian records, the first of these items is not available. As to the second, we do know that at the battle of Lake Ascagni, 17 of the 60 Italian planes used (or 1 in 4) were hit by fire from the ground.³ This figure is doubtless not accurate for the whole war but it gives an indication. We will not be so very far wrong if we combine these figures with the others. Thus, 1 plane in 4 hit, and 1 in 32 of those hit brought down, gives 1 brought down in 128 fired at.

But there are other things to consider. First, what was the state of antiaircraft training among the Ethiopian infantry? Probably low, very low. We can assume that many Ethiopian bands had never heard of it as such. Some soldiers may have had experience at shooting moving game, but not many; for the African native seldom

shoots at moving game when he can kill it standing still.

Again, what were the prevailing orders among Ethiopian troops about firing at planes? Were there standing orders to fire at planes whenever they attacked? Or was the fire spasmodic, a few shots here and there, like the Chinese fire at airplanes bombing Shanghai in 1932? Or was it a fire of desperation, as among the retreating Turks after Allenby's Megiddo in 1917?⁴ Though we must hazard a guess here, it seems probable that "spasmodic" is fairly close. It is unlikely that semi-civilized troops, untrained in antiaircraft firing, would normally bang away wholesale. Yet there must have been a fair amount of firing, since before the war was over, Italian planes were ordered to stay above a certain height (some hundreds of meters) while doing their bombing. Even a 128 to 1 shot is not so good if you risk it many times.

There are two more questions we can ask and not attempt to answer, leaving them simply as suggestions. What was the usual condition of Ethiopian arms as to accuracy and functioning? And was there always plenty of ammunition for firing at planes?

The main point here, of course, is this: A modern army, trained and equipped for intensive firing at low-flying attack planes, would have sent many, many times as much lead toward its enemies of the air as the troops of Haile Selassie did. But so far, in the wars of this world, maximum antiaircraft fire has never had a trial.

At this point suppose we see what quantity of infantry antiaircraft fire is reasonably possible. In doing this, let us use what is commonly considered the worst situation in which planes hurtling to the attack can find troops on the ground. Let us take a defile crowded with troops.⁵

Let us take this worst case and examine it from the ground up. In the tight squeeze of a jammed defile is there a chance for infantry? Let us see what could be done if we made the most of infantry's furious fire power.

In Figure 2 we have a defile, a deep one, with a road winding along its bottom and steep hills rising on both sides from the road. Troops caught in this trap by attack planes can only spread out over the width of the right of way. The hills, though not like cliffs, are too steep for rapid climbing. The defile in the figure is two miles long.

Let us move a sizeable body of troops through this defile—a division. Let us assume, at first, that there are no Coast Artillery antiaircraft units available, and that the division must use its own antiaircraft fire power. What, in that case, shall we use for infantry defense?

Let's make it strong; let's try one infantry brigade, less the howitzer and service companies of both regiments. Since the M-1 rifle is now well on the way, let us assume that the rifle units are equipped with this modern arm.

To protect the defile we use this antiaircraft detachment

³"We should not forget that great as the Turkish panic and the slaughter of the British air attack were, enough Turks turned and fired to bring down three planes."

⁴"At such points dispersion to minimize the effect of the (air) attack is difficult and the greatest delay and destruction can be obtained." *The Tactical Employment of Antiaircraft Artillery in the Independent Division and Corps*, C&GSS, 1937.

⁵"What Can We Expect of a Modern Antiaircraft Defense?" by Commandant Courbis, *La Revue Militaire Générale*, August, 1937, quoting *La Revue de l'Armée de l'Air*, June, 1936.



Figure 2

along its full length. Machine gunners, automatic riflemen, and riflemen stud the steep slopes of one side.⁶ They take all positions that offer a sweep of the narrow valley, up and down. They clear away the brush and lop off the limbs of trees to improve fields of fire. *And they dig in.*

Then, the rest of the division enters the defile, an infantry regiment leading, and soon the full two miles of winding valley road is full of marching troops. They are in single file on both sides of the road and their organic transport is on the road between. They are in the antiaircraft formation taught at The Infantry School.

Let this be the ground situation when the low attack strikes from the air. Coming from a flank, and banking swiftly, the hostile planes roar three abreast into and down the defile, machine guns wide open and tearing at the sides and floor of the valley ahead, and streams of bombs parachuting deliberate death into the valley behind. Other planes follow these as second and third waves of the air assault. But first, what ground fire meets the leading wave as it hurtles its course along the defile?

It will be simpler to grasp this if we use a brief table. In the antiaircraft brigade itself which we have placed to cover the defile we have the following, assuming that all weapons pick up the fire for just five short seconds⁷ as the planes come into close range:

Units	Weapons	Total Number of Weapons	Rate of Fire of Weapon per Second	Total Fire in 5 Seconds
18 Rifle Cos.	cal. .30 M-1 rifle	3,418	1	17,090
	cal. .30 autorifles	324	1	1,620
	cal. .30 machine guns	72	9	3,240
6 MG Cos.	cal. .30 machine guns	72	9	3,240
	Total rounds			25,190

In this table, the automatic rifles are assumed to fire one shot at a time. There have never been exhaustive tests of this weapon to determine its antiaircraft possibilities in full-automatic fire. There are reasons to believe, however, that it might be of much more antiaircraft value if it were thus fired. Nor have I included in the table the possible close-range pot shots of the 2,000 or more pistols in our antiaircraft brigade. Nor are caliber .50 machine-gun companies included. These would add 1,200 heavy rounds in five seconds if these units were not busy at antitank defense. Since a defile like the one we have assumed is poor ground for hostile tanks, antitank guns might well be available for antiaircraft use. This double use is generally frowned upon, however.

You can study these figures backwards and forwards, but they still indicate a tremendous volume of fire. And remember—the troops delivering this storm of bullets are well dug in and protected from their attackers.

If when the air attack hit, the defile were full of trains, or of troops comparatively low in antiaircraft fire power, the marching column could add only a fraction to the fire of the antiaircraft brigade. But if, as we are assuming, the defile road is full of infantry, these troops can deploy

narrowly on the road and its shoulders, and blast away at anything that comes over. They will be deep in the valley, though, and most of them may not be able to fire even for the brief space of five seconds. Some machine guns may not get into action at all, but riflemen and autoriflemen, swinging their weapons to their shoulders in short order, should get in about three fast shots apiece as the hostile planes speed by.⁸ This would add, assuming that the troops (less trains) of a regiment plus two battalions were within the defile at the moment of attack,⁹ roughly 7,500 rounds of caliber .30 fire to the 25,000 rounds of the antiaircraft detachment. Call the total 33,000.

Now we have the tremendous total of infantry antiaircraft fire power. But we must see how it is delivered before we have the full picture before us. We took the defile in our situation as being two miles long. It takes modern attack planes just 32 seconds to fly two miles.

In 32 seconds, then, the leading airplanes, in the attack as we have described it, would be met by 33,000 rounds of fire. It makes no difference whether those leading planes carry smoke to cover the planes that follow behind them, or mustard gas, or machine guns and parachute bombs—they get the same terrific blast of welcome in any case. They are on the receiving end of aimed ground fire at the rate of 1,000 rounds per second!

This is four times the fire that three planes themselves can deliver. They have 12 guns firing 20 rounds a second. Their fire, moreover, is area fire. They fly 110 yards per second at 225 miles per hour. Each second of their fire is spread over a length of 110 yards and a width of at least 50 or 60. This means that one bullet strikes in every 25 or 30 square yards. And as far as the antiaircraft brigade is concerned, it is well dug in, and it should receive few casualties from this comparatively thin sheaf of aerial fire—thin simply because it moves so fast over the ground.

But turning the picture around again, can we not get some idea of how the ground fire is dispersed as it funnels up toward the planes? There are 1,000 rounds per second, but even this tremendous blast could spread all over the skies. Does it have factors of dispersion, like the fire from the planes, which gravely reduce its potential effect?

We can only give a rough answer to this question, but one that indicates how concentrated this fire must be. Most of the rifle and autorifle fire directed at a plane should come within 10 or 15 yards of it, or hit it. Machine-gun fire may miss more widely. Suppose we take 20 yards as the radius within which most of the fire will go, as in Figure 3. Here, the area inside the broken line represents the dispersion area of all but a few wild shots. This area contains about 4,000 square yards. But the same three planes, viewed from the side would appear as in Figure 4. This area contains about 2,700 square yards. Thus 3,500 yards will give us a rough average for the area through which most of the ground fire will pass.

Now what does this mean in terms of the deadly busi-

⁶As a general thing, positions on two sides of a defile might receive each other's fire. The positions shown are diagrammatic.

⁷Tables of Organization, C&GSS, 1937.

⁸Men can fire three hasty shots with the semiautomatic rifle, or the automatic rifle, in two seconds or a little over.

⁹Reference Data, C&GSS, 1937.

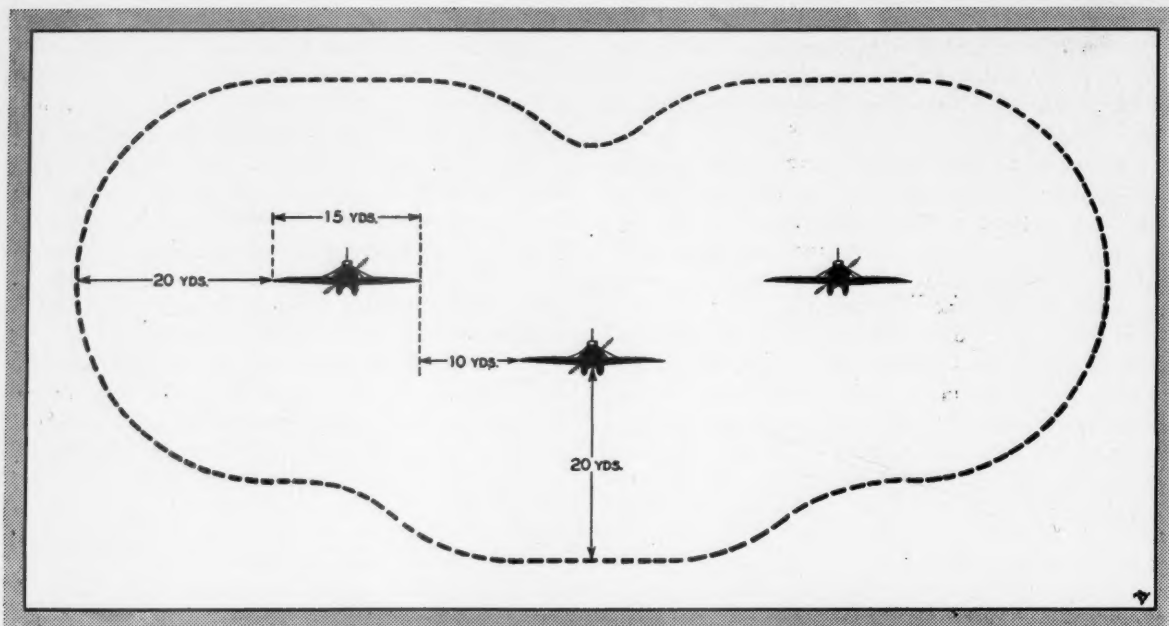


Figure 3. Where the Infantry fire goes. Head-on view.

ness of war to an enemy pilot heading his plane into the hail of infantry fire coming at him from the defile? It means exactly this: That if the ground fire is spread evenly over the areas shown in the figures, *every single square yard of his plane exposed to fire will be struck by at least 9 bullets as he flies the length of the defile.*¹⁰

One bullet for every square foot of plane exposed!

Naturally, the fire of the ground troops will not be spread evenly throughout the areas shown in Figures 3 and 4. If the ground troops are well-trained in antiaircraft firing, the fire will be much denser near and on the planes themselves than 20 yards out from them, and the percentage of hits will be correspondingly higher. The evenly distributed fire we have assumed works out to a little less than 1% of hits out of 33,000 rounds fired. This is a low estimate rather than a high one, of what we can actually expect in war. At towed-target firing, riflemen make 2% to 3% of hits on targets hardly one-fourth the size of an airplane. Before it was against regulations to conduct antiaircraft firing at targets towed but a few yards off the ground, 8% and 10% of hits were made upon these same small targets.¹¹ It would be surprising in war if riflemen, with even a small amount of antiaircraft training, do not average 2% hits out of the total rounds they fire. Machine gunners will not do as well as that because of the natural dispersion of antiaircraft machine-gun

fire and the greater difficulty of holding a firing machine gun aligned on a moving target. The French writer referred to in the footnote says that it takes 8 times as many machine-gun bullets as rifle bullets to gain one hit.

By now, it should be plain why the fire of ground troops in Ethiopia, in China, and in Spain, has not been highly effective. There hasn't been enough of it! Fill the air with bullets and no attack plane yet built can live through the fire. That's all it takes.

In the defile situation we have used as an example, the three leading planes of the hostile attack would be lucky to get any distance down the defile before receiving hits that would bring them to earth in a crash or a forced landing. As long as the planes could keep going, they would be capable of serious damage to the troops actually marching through the defile on the road beneath them. But the entrenched infantry antiaircraft brigade on the slope of the defile should get no more than light casualties from machine guns and bombs alike. We have already seen that the machine-gun fire from the air is not very dense because it moves so fast. The fragmentation bombs are bad for troops with little cover. But the entrenched troops of the antiaircraft brigade can duck when these bombs fall near. A parachute bomb doesn't hit for several seconds after the plane that drops it passes over. And by then, the plane will be fairly out of range, anyway. Remember, we have only figured on 5 seconds of fire for the antiaircraft troops. Some of them, in extra good positions, will be able to fire at the planes for 8 or 10 seconds as they approach and, provided no bombs fall close, for the same length of time after they pass by or over.

It follows that the antiaircraft brigade, which delivers four-fifths of the total antiaircraft fires we have estimated possible, can give the same hard dose to the second wave

¹⁰33,000 rounds
3,500 sq. yds. = 9 bullets per square yard.

¹¹Captain P. Gauvin, of the French Colonial Infantry, in *La Revue des Troupes Coloniales*, July, 1938, writes that French results on air targets towed low to the ground are: rifle, 33% machine gun, 18%. This fire was probably conducted against large types of towed targets roughly the size of an attack airplane fuselage. In early firings at The Infantry School on targets 3 by 15 feet towed directly toward the firers, as many as 40 hits were registered by three platoons with Springfield rifles.

of planes—and the third, and the fourth—and as many as come. As long as they try to come down the defile flying low, the concentrated antiaircraft fire of infantry will practically blast them from the air.

Thus the kind of a defile that might appear, at first thought, to be the deadliest sort of trap for marching infantry, turns out to be truly deadly for the air attack. Indeed, any manner of defile, properly protected by antiaircraft units is just such a trap, with possibly one exception—a long, narrow bridge. A bridge or causeway so long that its center part could not be well covered by fire from shore would take a lot of preparation to protect adequately. There are two ways it could be done. Sandbag redoubts could be built along the sides, or armored trucks or cars could be posted at short intervals along the bridge. Shore fire would give good protection for at least 300 or 400 yards out from the banks. But in general, a defile adequately covered by infantry fire is the worst hornet's nest low-flying aviation can conceivably fly into.

The same technique can be used where there is no defile. It could be used on a flat plain or desert. But in the usual case deployment over a considerable width, and movement across country in full readiness to open antiaircraft fire, should give protection enough on such terrain without a set intrenched defense.

The defile type of defense can be used to protect truck columns moving on open roads. It should not be hard to work out a system of leapfrogging by which half or a third of the infantry in a column could be protecting the movement of the rest at all times. The Infantry School text, referred to earlier, gives a method of using machine-gun units in this manner to cover marching foot troops. But it is doubtful whether the machine-gun units, by themselves, have enough fire power. There should be a sizeable fraction of the rifle troops used in the same way; for, after all, it is the rifle that furnishes the great bulk of the infantry antiaircraft fire power. Such movements, of course, would not be rapid, owing to the time it would take for antiaircraft troops to intrench.

The same need for augmentation by rifle units is true of the Coast Artillery machine-gun antiaircraft defense. The attachments now given to infantry divisions in problems at the Command and General Staff School are woefully inadequate. The Leavenworth antiaircraft text earlier quoted states plainly enough that "the limited amount of matériel available will usually force" Coast Artillery antiaircraft troops to establish only "a defense at the start and finish of the march, together with a defense at one or two points en route." This refers to the gun defense, as well as to the machine-gun defense against attack aviation. But surely the machine-gun defense can be greatly augmented at any time by using a regiment or two of infantry in addition.

In any case, the antiaircraft protection must be of the stoutest. The lesson of Guadalajara was not that daylight truck movements are next to impossible in the face of a strong attack threat from the air. The lesson was that

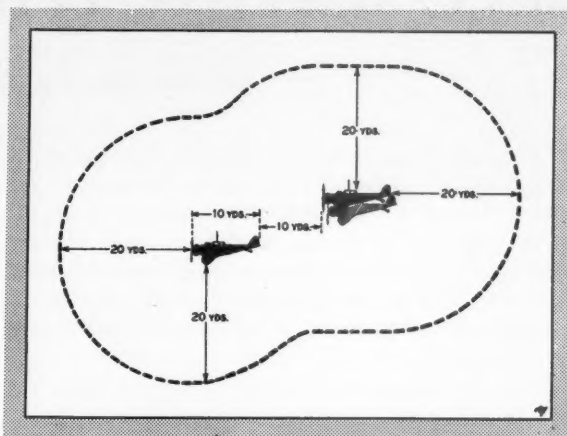


Figure 4. Where the Infantry fire goes. Side view.

unprotected movements of the kind smeared at Guadalajara are highly dangerous when the enemy is liable to smack down with his air attack. There will always be times when troops, whether they are in trucks or afoot, can only get forward at slow rates of movement—when the state of the routes will not permit the usual speeds of travel. It is then that intense infantry antiaircraft fire becomes vital.

The fire of infantry centered upon attacking planes is more than delicate engines and the pilots who direct their flight can conceivably stand. Neither man nor machine is protected by armor, for the weight of armor is out of the question in attack airplane designs. There is no argument as to the effect upon unarmored planes of rifle and machine-gun bullets, provided only that bullets are fired at them with sufficient density. Planes can take a lot of punishment, but not on their vital parts. The steel of cylinder walls is brittle and easily smashed, propellers can be thrown off balance and engines thus ruined by bullet holes through their blades. And there are many other vulnerable spots, including the pilot himself. It is only a matter of creating such a veritable blast of fire from the ground that a vulnerable point is certain to be hit. And infantry can do that very thing.

If we counter every low attack with the heaviest of fire, the enemy will not try such attacks for long. He will soon enough learn to stay above the fire of infantry. True, from a thousand yards or so he can still drop his bombs. But his machine-gun fire will be worthless and his small bombs will be dropped with even less accuracy than they are now. Much of the battle will be won when the hedgehoppers are driven toward the clouds.

Then why not give the powerful means actually in our hands a thorough trial—why not stick to our guns in every sense—before we begin to say it can't be done? We are in the antiaircraft habit of thought for sound reasons, not on faith alone. When it can be shown that a thousand bullets per second will not bring down attacking planes, only then will the sound reasons be gone—only then should infantry give mastery to the air.

CAVALRY IN THE WAR IN SPAIN

A Review by Fred W. Merten

The CAVALRY JOURNAL, in a previous issue, presented to its readers an impartial and objective discussion by a Russian officer of the employment of cavalry in the Spanish campaign up to the end of the year 1937.¹ In the *Revue Militaire Générale*, October, 1938, General Niessel of the French Army takes occasion to review that discussion and to comment on cavalry operation in Spain during the current year.

As to the achievements of the cavalry in 1937, the author of the Russian article pointed out that, despite the lack of modern armament and equipment of the Loyalist cavalry, its successful employment clearly revealed the importance of the mounted arm. If the Loyalist forces, in the Battle of Brunete where they penetrated the opposing front, had possessed a strong cavalry capable of strategic action, their success probably would have been much greater, for cavalry could have been readily employed on that front to consolidate the gains.

According to the official bulletins issued by the headquarters of General Franco, the cavalry and the motorized units cooperating with it played a notable part in the operations of the Insurgent forces during 1938.

In the operations conducted on the front north and northeast of Teruel, February 6 and 7, the Insurgent forces gained control of the mountains that rise to the west of the valley of the Alfambra. As soon as the Insurgent forces had reached several points along that valley, cavalry squadrons rode on ahead at a rapid gait, caused the Loyalist forces to hasten their disorderly retreat, quickly seized a number of villages and held them until the friendly infantry had moved up.

The bulletins issued by General Franco on February 12 and 13 make special mention of a cavalry action which took place at Estramadoure in the Granja de Torrehermosa region. The moment the Insurgent infantry had pierced the hostile front, several cavalry squadrons charged the enemy and forced him to take up a hasty retreat. The cavalry captured the village of La Posilla and the high ground of Los Pojos, then continued the pursuit on horse as far as the villages of El Abrevadero and Juncal and occupied them until the arrival of the friendly infantry.

On February 21, while troops of all arms were occupying the valley of the Turia, a cavalry force made a raid on Castalvo and captured the village, thereby cutting off the retreat of the Loyalist elements that were trying to escape toward the south. This action largely contributed to the surrender of the Loyalist troops that were still holding out in Teruel.

During the offensive which the Insurgents launched early in March all along the front from Montalban to Saragossa and north of that city, the cavalry division of

General Monasterio, a force composed of horsed, motorized and mechanized units, played an active part. The official bulletins of the Insurgent High Command report that this cavalry division strongly participated in the attacks in the Belchite region and, by its rapid and forceful advance, contributed largely to the wild retreat of the opposing forces. The bulletin of the following day announced the arrival of Monasterio's division at Escatron on the Ebro, a town located more than 20 miles from the point of penetration at Belchite. This daring maneuver served greatly to facilitate the forced march executed somewhat farther south by elements of the corps of General Yague which, on March 15, reached Caspe, a town situated on the banks of the Ebro southeast of Escatron. Within five days, the Insurgent forces pushed their front lines 60 miles farther to the east and captured 8,000 prisoners, besides large quantities of booty. Throughout those days, Monasterio's cavalry division was covering to the east as well as the main body of General Yague's corps which was preparing to cross the Ebro at Quinto and Gelsa.

On March 23, the extreme left flank of the Insurgent forces launched a surprise attack from the direction of Huesca; simultaneously, the main body of Yague's corps, accompanied by several cavalry squadrons, crossed the Ebro at Quinto and Gelsa and marched on Bujaraloz with the view of blocking the road from Saragossa to Lerida. Completely turned, the Loyalist front east of Saragossa crumbled. Some cavalry rode ahead of the marching columns of General Yague; while other cavalry elements on the left of the corps seized the town of Pina and established themselves in that town, the remainder of the cavalry advance guard inflicted heavy losses upon the Loyalist forces and, during the next few days, gained control of the area of Los Monegros, north of Bujaraloz. Another large cavalry detachment and motorized elements meanwhile pushed on into the region east of Caspe, where the river makes a sharp turn, and, by an encircling maneuver, cleared that region of the enemy and captured Nonaspe, Fayon and the high ground near these towns.

Again in June, 1938, the cavalry rendered great services in the pursuit of the opponent and in the consolidation of gains during the local offensive executed by the Insurgent forces on the front near Penarroya.

General Niessel, whose objectivity and renown as a military writer is acknowledged in the military press of all countries, warns against the fallacy of concluding from the operations in Spain that aviation and mechanization are capable of assuming the functions of the cavalry. He concurs with the views of the Russian observer that "intelligently employed and using proper tactics, the cavalry is a modern arm in every respect and should be widely employed both for strategic missions and for combat."

¹"Cavalry in the Spanish Civil War," by M. Svetayev. The CAVALRY JOURNAL, November-December, 1937, pp. 539 and 540.

Soldier Sources

By James Anthony Reilly

In his famous military classic* Ardant du Picq shows us that soldiers of every age and nation are substantially the same in their emotional reactions to imminent danger of death. Some races may be naturally more courageous than others; some units of an army might have better discipline and higher morale than others, but when in the surge of battle there comes a moment when there seems to be no escape from death, these differences vanish and the soldiers are revealed as human beings of striking similarity. This fact and all its elements should be a subject of comprehensive study for every officer, and can be studied with equal soundness in accurate accounts of the battles of Marathon and the Marne, Cannae and Cantigny.

But there are smaller things than the first law of nature that motivate soldiers in war. These things are determined by the national character, the current national philosophy and the general atmosphere and particular environment of which the individual man is a product. They are highly variable, and where the soldier's emotions caused by imminent danger of death may be gauged by the same rule through the centuries, these things vary with the decades.

Today's Americans of military age are known to be different from the young men who filled the ranks of the A.E.F. Perhaps the difference between them is not so conspicuous in the peace-time functions of the three components of the Army of the United States. But in the event of a national emergency that necessitated that millions of men be called from civil life the difference would not be inconspicuous; in fact to those whose more or less sheltered military lives have kept them apart from the civil life of our country, whose economic, social and professional orbit is entirely within sound of the bugles, the difference would be startling.

The twenty-year period between the two generations has witnessed new political influences, new economic and social theories abroad in the world; a changing national philosophy and a growing effeminacy at home. The effects of these things on our soldier material are incalculable. Fundamentally their effects are not good and can be fatally detrimental to the nation's defense if not fully understood by the men who will lead such troops, and more important, by the higher commanders whose will they must do.

But when the psychology of the soldier is soundly grasped, the atmosphere and conditions of his pre-military life understood by his superiors, the disadvantages of any unmilitary traits or sentiments can be reduced,

eliminated or counteracted. Deep understanding of the soldier carries with it a potential ability to appeal to his imagination. Serious students of military history will not despise this ability, for its lack in a leader means military mediocrity regardless of what other qualities he may possess. Every great general in history owed a large part of his success to his appeal to his troops; and his ability to appeal to them he owed to his understanding of them.

To obtain a deep understanding of four modern American soldier we must make an analytical study of modern American life. We must examine its faults as well as its virtues from the military point of view, classifying that which is detrimental to the growth of soldierly qualities as a fault and that which promotes these qualities as a virtue. We must be, above all, coldly candid and as cruelly realistic as war itself. Most studies of our military potentialities list the favorable factors only: American supremacy in athletics, the mechanical aptitude, the amazing adaptability and natural courage inherent in the American character, et cetera. But there must be some unfavorable factors. A business civilization cannot produce an army of perfect soldiers. Consequently if we find defects it is not unpatriotic to mention them, for we must know the potential soldier's weaknesses as well as his strength.

If we could make a searching study of the national life of the nations that produced the great armies of history we would find that they varied widely—but had many things in common. The peoples that gave Alexander, Caesar, Genghis Khan, Gustavus Adolphus, Frederick the Great and Napoleon their armies were proud, vigorous peoples steeped in the glories of war and who exalted the qualities of the soldier and gloried beyond modern conception in heroic death. The soldiers of Napoleon, in addition to the heroic traditions of their age, were fired by zeal for a cause. The German armies of the World War were also the products of a militaristic civilization in which soldierly attributes were paramount, and were able to stand off a superior enemy for four years, smashing one Allied force after another. Thus common sense and all the evidence agree in pointing to the conclusion that the soldier civilization produces the best soldiers. But we are not a soldier nation. We have the military tradition of an ever victorious army but it is not close to the heart nor prominent in the consciousness of our people.

What, then, is the dominating influence in American life? The answer is definite and indisputable: Business. The ideology of our people is based on business; the great majority of our youth is trained and educated for business; to the average American, business success is the supreme

*Battle Studies.

achievement; the business millionaire is the highest form of life. Our American culture is largely a standardized, urban, commercial culture. Even our rural minority has absorbed this culture, thanks to the automobile, movies and radio. From the military point of view this cannot be viewed without qualms. But for the proportionate few—soldiers, writers and others—who revolt against the complete acceptance of this culture, this greatest, richest nation would follow the trail of the preceding greatest, richest nations of fifty centuries of history and would soon be a prize for the first warlike nation that came along.

Business, with its basic purpose of personal profit and the subordination of all things thereto, develops the instinct to "get" rather than to serve, and is certainly not the ideal environment for the moulding of soldier material. But true leadership consists of making the best of conditions beyond control and getting the most out of men. Besides, we have no alternative, for it will be from the factories, offices, stores and highways that the bulk of our armies will come. To better understand and thereby more effectively lead the soldiers of vast wartime armies it is necessary to examine closely this source from which most will come the business structure of our country.

We must consider the conditions under which the average potential soldier works, his reactions to those conditions and his philosophy produced by them. We must also analyze the command and leadership under which he works, for it is this that gives him the conception of authority he will bring to the training camp and will retain until it is supplanted by another conception—if ever.

In the business world there is a large element of farce, of which the young American is keenly aware and the effects of which will be felt in the large citizen armies of wartime; perhaps disastrously felt if there is no specific effort to counteract them. Business puts great emphasis on the virtues of loyalty, initiative, application, perseverance and hard work but all too often it is a case of virtue being its own reward. Every potential soldier who has served a few years in the ranks of business is familiar with the old story of the possessor of these qualities laboring away unhonored and unsung if not unnoticed while rewards go to fakers, bootlickers and windbags. Then there is the well proved proverb of the business world that "It's not what you know, it's who you know"; all of which tends to corrupt the clean ambitions of our soldier material and implant a stubborn growth of cynicism. These conditions are more widespread than the military man realizes; they are a definite factor of our national life and therefore of prime military importance. One of the results is to make the average potential soldier skeptical of the value of honest effort. By his standards the fellow who seriously applies himself to any laborious activity is a sucker; the clever fellow is one who can get himself a sinecure to which attaches credit for every finger wriggle. Any observer of our changing national traits can see the growth of this "Why-should-I-kill-myself" philosophy, and its effect on our national life.

The young American holds to the cynical opinion that

nothing is really what it is supposed to be; that there is always a secret inside story and a concealed inside track. Such an attitude widespread in the ranks can poison an army, but the antidote is obvious. We must give the recruit prompt proof that the Army is not like the business world, that the Army is honest and that things are really what they are supposed to be. He must be convinced that his sergeant is his superior because he is a better soldier and his company commander holds that post because he is the best qualified man—not because he is the colonel's nephew or the general's favorite sycophant. Cynicism and disrespect for authority are practically standard characteristics of the young American, and when convinced and converted to the honesty and earnestness of the Army the first great obstacle will be conquered.

But there are many more that our business civilization has placed in the path towards the realization of the great dream of an American army that will stand with the greatest armies of history—a dream that is not founded on vainglory for this is a militaristic era, full of danger for the nations we term "the haves." Our commercial culture exalts monetary gain. By its standards profit justifies the most questionable endeavor short of crime. To say a man makes "big money" gives him far more prestige than to say he is brave and honorable. This is the atmosphere that our soldier material breathes, and the Army must plan to begin to neutralize it on M day. To many it fouls their nostrils and is unspeakably obnoxious, to some it is pure and sweet but to most it is just uninteresting but not unbearable. In the latter it promotes indifference in the performance of duty, which is conspicuous in the business world, but accepted. The Army's perfectionism in the performance of duty is a far cry from the "good enough" that suffices in business. Here again we must convert the recruit.

We must convince him that Army standards are the only standards worthy of a man; that the haphazard, indifferent, farcial standards of business are beneath him. If necessary to neutralize the adverse effects of our commercial culture on him, we can breed in him contempt for the business world. The slouchy, commonplace, unheroic and unhealthy business man provides a ready nucleus around which to weave contempt for business. Very likely his last civilian boss was a mediocre individual completely devoid of any quality of leadership.

Another advantage in debunking business would be that it would tend to lay at rest rife rumors that we were fighting for Messrs. Morgan, Rockefeller, et al, for whom many contend we fought the last war. It would leave the way open to imbue the soldier with the conviction that he was really fighting for the general welfare of the American people.

But here again we encounter difficulty. Our commercial culture's invasion of our educational system has brought with it many undesirable things: ultra-materialism, exaltation of self, a wrong conception of freedom and a scoffing skepticism towards many of the things earlier generations of Americans held sacred. Then there is the

parlor pink-pacifist influence from which few of our educational institutions, other than military and Catholic, are completely free. Convincing the products of this system that the Flag and the nation's honor and destiny are things worthy of the sacrifice of their lives will not be easy, for a large percentage of them have been led to the dangerous belief that such things "are just a lot of baloney anyway."

Education does not undermine national defense. Education that truly enlightens the student and implants in him practical ideals of a better world and a happier humanity should increase our military power. An untainted knowledge of past and contemporary history would indicate that only under our Flag, and the potential armed might it signifies, does there lie any hope for the realization of these ideals. But in these things the world's most extensive educational system fails. The silly conception of war and its causes, the blindness to our obvious national destiny, the lack of great, unselfish national ideals on the part of American youth are advertisements of this failure, and we must face the unflattering facts.

If we face them fairly we must come to the conclusion that in the event of a prolonged major war it would be advisable for the Army to embark upon an educational program to compensate for civil education's failure to leave the student with a capacity for military enthusiasm. The deglamorization of war has gone too far. The military contribution to our national greatness is often played down. Our greatest military heroes are not given the niches they formerly occupied; Grant, Lee, Jackson, Sheridan and Sherman are merely some remote, legendary "Civil War guys." Our part in the World War holds an incredibly small place in the young American's mind for such a great national effort only twenty years back; aside from General Pershing few of the high commanders of the A.E.F. are known by name. Boys do not aspire to be soldiers as they once did; popular interest in Army affairs is not high; for the first time in American history the high ranking generals are not popularly known national figures. The young American is not impressed with his obligation of service to his country; "They'll never get me" is too frequently heard in any discussion of the possibility of the United States becoming involved in war.

These things are good indications of the results of the processes through which our business civilization puts our

soldier material. The comprehension of these processes and their results is more important than a knowledge of tactics, for "*in war the moral is to the physical as seven to one.*"* An understanding of these influences on the life and thought of the potential soldier furnishes the key to his character; then the things that might prove the pitfalls of authority and, perhaps, the cause of the defeat of our armies can be avoided. Therefore study the civil life of the modern young American, for it is in the civil life of a country that wars are won, or lost, before they start.

Learn how to handle the civilians in uniform that will form the bulk of our emergency armies. Consider means of making the Army appeal to them instead of antagonizing them, as was largely the case in 1917. Instead of showing war service as a grim duty play it up as an exciting adventure to which they can escape from the slavish monotony of the business world. Show war as a contest, for the American is a born contestant. Study ways to exploit all his likes and dislikes, his opinions and peculiarities.

Remember that peacetime experience with Regular Army recruits fresh from civil life is no example of the wartime problem. In normal times the recruits come in dribbles and are immediately surrounded by soldiers and immersed in the Army atmosphere. In wartime the recruits come in great swarms, the soldiers are soon surrounded by civilians, civilian disorder and confusion reign almost to the exclusion of the Army atmosphere. And then in normal times the recruits all come of their own accord.

All in all, if this discussion appears to present a too dismal picture it is because it is primarily a study of the often overlooked adverse effects of our business civilization on our soldier material. Our soldier material is excellent. In spite of the soft spots produced by processes to which he has been subjected in the routine of national life, the American makes a soldier the equal of any. If he is understood, psychologically and philosophically, because his background is understood; with organization, weapons, tactics, regulations and rations, conditions and customs of his Army perfectly fitted to his character, so that his strong points are exploited and his weak ones detoured, the American will make a soldier the superior of any in the world today.

*Napoleon.



Annual Convention of the National Guard Association, 1938

Among the resolutions passed by the convention was one which supports cavalry activities.

This resolution reaffirmed the recommendation of the 1937 convention and the unanimous action of the Adjutants General Association, requesting that the War Department promptly authorize the completion of the four National Guard Cavalry Divisions, "through conversion and an increase in personnel of 1,500 men from the third

5,000 increment of the National Guard;" that the National Guard Cavalry Divisions be restored to a place in the general mobilization plan; and that the Legislative Committee be directed to request Congress to eliminate from future Army Appropriations Acts the provisions restricting the number of mounted units to be organized in the National Guard.

THE NEW SEMIAUTOMATIC RIFLE

By FRANK J. JERVEY*

"The only radical improvement in muskets which is now known to be under study is the application to these arms of the automatic principle, to the extent of causing the musket itself to effect its own reloading upon discharge. The principle has been already applied with some success to pistols, and its advocates claim that it is logically in the line of development of the magazine rifle, in reducing to a minimum the interval between aimed shots. Both tactical and mechanical questions are involved in the consideration of the possible desirability of the substitution of a semiautomatic musket for the hand-operated magazine rifle. Up to the present time mechanical invention has not solved its part of the problem, and no rifle of the class has been presented to this Department for examination and test, although its willingness to take the subject up has been signified whenever occasion has offered."

The above quotation from the 1902 report of the Chief of Ordnance may be construed as foreshadowing the development of the semiautomatic rifle. This project was brought to a successful conclusion thirty-four years later, when the Ordnance Department presented the using services with the U. S. rifle, caliber .30, M1.

During the long era of search and development, many designs embodying every conceivable principle of operation were investigated. Included among these were the Dryse, Schauboe, Bommarito, Rychiger, Bang, Elder (Rychiger type), Elder (St. Etienne type), Liu, Standard, Berthier, Thompson P.C., Thompson V, Pedersen, Garand (first model), Hatcher (modified Bang), Colt, Remington, Mondragon, Stergian, Murphy-Manning, Farquhar, Springfield, and the Rock Island Arsenal model.

Competitive tests to which inventors were invited to submit models of semiautomatic rifles were publicly announced for September 15, 1921, and again seven years later, July 1, 1928. Full details of characteristics and functions, mandatory and desirable, were stated in the announcements to inventors.

In some of the earlier models, attempts were made to modify the M1903 (Springfield) rifle by adding an attachment which performed the function of unlocking and opening the bolt by receiving the necessary power from the powder gases of the cartridge. Aside from being grotesque and unwieldy, these models failed to function reliably. It is interesting to note that the rifle finally selected operates on this same principle. However, the streamlined product of today bears no more resemblance to its ugly cousins than a Derby winner does to an old-clothes man's plug.

The inventor of this new rifle is John C. Garand, an Ordnance engineer of the Springfield Armory. He has been employed at the armory since 1920 and during this time has designed and built models of three types of semiautomatic rifles in addition to other small-arms inventions.

Unlike many men of his profession, Mr. Garand's talents are not limited to the field of invention. He has an intimate knowledge of manufacturing technique and on many occasions has proved of invaluable assistance in the work of tooling up for the new rifle.

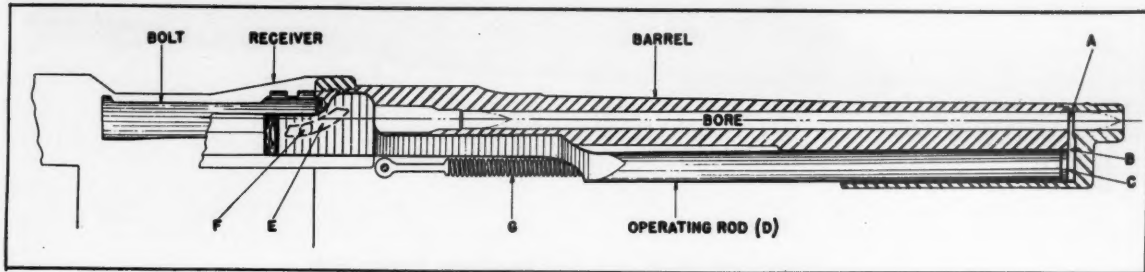
The new M1 rifle is a gas-operated, clip-fed, self-loading, shoulder weapon slightly over nine pounds in weight. It fires the same ammunition as the caliber .30, M1903 (Springfield) rifle and all standard U. S. caliber .30 machine guns. The ammunition is supplied in 8-round, reversible, *en bloc* clips which are fed by hand into the magazine of the rifle. Upon being inserted, the clip depresses the follower which in turn releases a catch, allowing the bolt to go forward under the action of a compressed spring, stripping the top cartridge from the clip and chambering it. When the last round in the clip is fired and the empty case is ejected, the clip also is ejected and the bolt is retained in the open position ready for the insertion of the next loaded clip.

The semiautomatic or autoloading action of the rifle is accomplished by a mechanical or "robot" called the operating rod. This component takes the place of the human arm in operating the bolt, the power being obtained from the propellant powder gases. In the conventional bolt-action rifle such as the Springfield, the bolt remains closed and locked to the receiver after the round is fired. To reload, it is necessary to grasp the bolt handle manually, raise it until the locking lugs of the bolt are disengaged from their locking recesses in the receiver, and then draw the bolt to the rear, extracting and ejecting the empty cartridge case. The bolt next is returned to its locked position by hand. At the same time, this operation chambers a new cartridge.

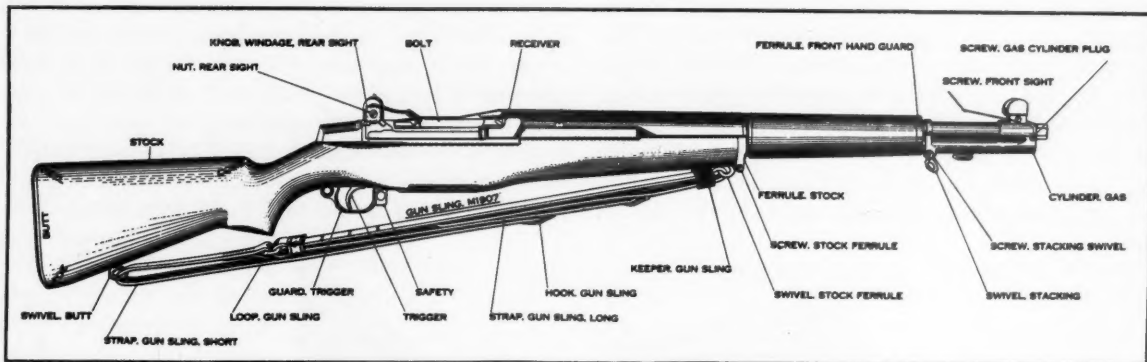
In the M1 rifle, this manual operation is performed automatically by the operating rod. The diagrammatic sketch on page 525, while not a drawing of the actual parts used in the rifle, shows the cycle of operation. When the cartridge is fired the bullet is propelled down the bore. As the rear end of the bullet reaches position *A* as shown in the drawing, the powder gases enter chamber *B* and impinge against piston *C*, driving it to the rear. This piston is at one end of and also an integral part of the operating rod *D*. The other end of the rod contains a slotted cam *E*, into which projects a cam-shaped extension of one of the bolt-locking lugs *F*. In traveling to the rear, this slot cams the bolt-locking lug extension upward, rotating the bolt until the bolt-locking lugs are disengaged from their locking recesses in the receiver. The operating rod continues to the rear with the bolt which in turn extracts and ejects the empty cartridge case and cocks the hammer. During the rearward travel of the rod, the spring *G* is compressed, thereby storing up sufficient energy to return the rod, bolt, and a new cartridge to the firing position. The only manual operations performed are those required to pull the trigger for each shot and

*Ordnance Engineer, Small Arms Division, Industrial Service, Office of the Chief of Ordnance.

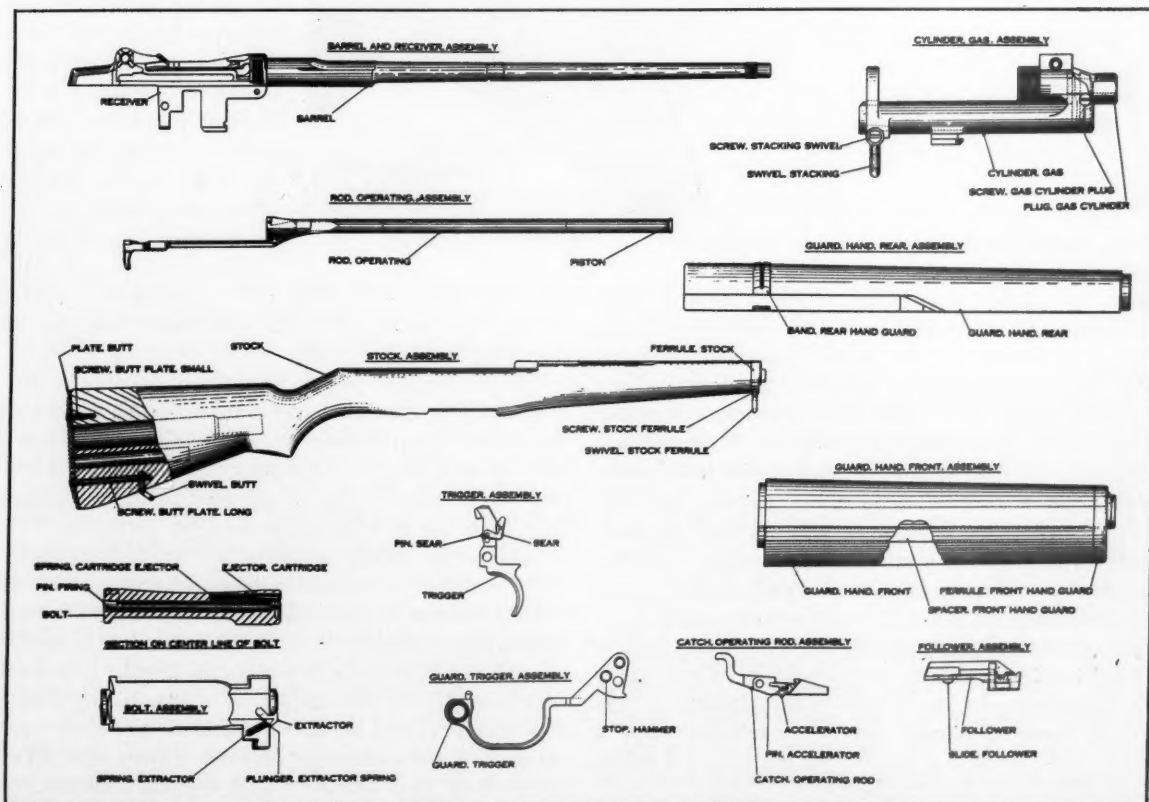
The Service Rifle and Its Principle of Operation



Diagrammatic Sketch of the Principle of Operation



Main Exterior Parts of the Rifle



Main Interior Parts of the Rifle



Right Side View of the New Semiautomatic Service Rifle

to insert a new clip after every eighth round.

There are many features of the Garand model which make it stand out in comparison with other models that were considered by the various boards. These include reliable functioning, general appearance, good balance, safety, and short receiver (actually shorter than the receiver of the Springfield). A long receiver is objectionable for several reasons. It is not conducive to good balance. If the added length extends to the rear, it interferes with proper sighting, and if it extends to the front, it either adds to the length and weight of the rifle or the barrel has to be shortened to compensate for the long receiver.

Simplicity and relatively few parts are conducive to ease of manufacture and maintenance if this can be accomplished without resorting to complicated shapes. The M1 rifle has seventy-two components including springs, screws, and pins as compared with ninety-two for the Springfield. This reduction was made in spite of the added semiautomatic feature of the new rifle.

Quite a number of the models presented were not judged to be properly secure against the possibility of premature discharge; *i.e.*, under certain conditions, it would be possible for the cartridge to be fired before the bolt was properly closed. To prevent this condition in the M1 rifle, the hammer is so constructed that it cannot strike the firing pin before the bolt is rotated to the fully breeched position. To provide an added safety measure, the firing pin is prevented from traveling forward until the same condition exists.

The new rifle is probably the easiest to disassemble of any military semiautomatic ever developed. A demonstration of removing its parts always evokes amazement from even the most experienced riflemen. It requires a total of about twelve seconds to remove the trigger-guard group, stock, operating rod and the bolt.

The rear sight is entirely new in principle and is a great

improvement in its field. Mounted on the rear part of the receiver, the aperture is close to the eye and the longer sight radius thus provided makes better scores possible.

One of the more interesting and unique parts of the rifle is the trigger-guard group, which consists of the hammer, trigger, sear, safety, and the parts which cause the weapon to function semiautomatically. In most weapons the firing-pin blow is either directly or indirectly caused by a compressed spring, and the energy stored in the

spring decreases as the firing pin moves forward. Thus, when the spring becomes fatigued, the blow on the primer is materially reduced and the result may be hang-fires or misfires. In the Garand mechanism, the construction which functions the hammer is such that the leverage is increased as the hammer nears the point of impact. This tends to reduce the load on the sear and causes the trigger to pull easily, in turn increasing the load on the firing pin at the



Placing Cartridge Clip on the Follower

time of firing, thus tending to prevent extrusion of the primer. This is just the reverse of the force as applied by the spring in the service rifle.

The receiver is so designed that in the event of an accident resulting from defective ammunition or a stoppage in the bore, the probability of serious injury to the firer is very remote. There is no danger of a bolt being blown back in the shooter's face or gas from punctured primers being the cause of injury to his eyesight.

Some semiautomatic weapons function very satisfactorily provided the ammunition is specially adapted to the idiosyncrasies of the particular design. For example, some required that a slight film of oil or its equivalent be applied to each cartridge case before it is chambered. This is unnecessary with the M1. In fact the weapon is quite flexible and fires high- and low-powered ammunition with equal satisfaction and without the necessity of any sort of adjustment in the piece when a change is made from one type to the other.



Left Side View of the New Semiautomatic Service Rifle

To satisfy the requirements for a military weapon, certain exact demands had to be met. The new rifle must not weigh over nine pounds; it must be well balanced and adapted to shoulder firing; it had to be simple, strong, compact, and adapted to ease of manufacture; the mechanism must be so designed as to preclude the possibility of premature unlocking, and the bolt must be positively locked at the instant of firing; the use of oil or grease applied to the cartridge case should not be necessary for proper functioning. Tests by the using services clearly showed that the M1 rifle satisfied all these requirements, and it might be well to mention in passing that these services are not prone to "nurse" a weapon along in any test. In such cases, it is customary to issue the test weapon to all classes of soldiers from the tyro to the expert rifleman. When a test weapon receives a diploma from the school of the doughboy, it is truly fit for the wars.

In all comparative tests between the semiautomatic and the bolt-action, shoulder rifle—i.e., between the M1 and the M1903—conducted by the Ordnance Department as well as the using services, the new rifle clearly demonstrated its marked superiority. These tests included combat and antiaircraft firing with expert, partially trained, and untrained soldiers. It generally is conceded that for short periods of fire the M1 has the value of approximately three bolt-action rifles. Many skeptics of the principle of a semiautomatic shoulder rifle have been converted by one personal experience in firing this rifle. The lack of fatigue after continuous firing and the ease with which the rifle can be held on the target throughout the firing of a complete clip is remarkable for the type of fire. Probably the most outstanding demonstration performed to date with the rifle was accomplished when "Al" Woodworth of Springfield Armory fired one hundred aimed shots within one minute. One case on record tells of 80 shots at 200-yard range within one minute with no shot dropping out

of the 4 ring of the target. The average rifleman, however, is capable of firing approximately forty shots per minute.

The rifle shows its greatest superiority over the Springfield in antiaircraft work. The so-called "kick" of the conventional, bolt-action rifle throws the line of aim well away from the target at each shot. The aim is further disturbed by manipulating the bolt for the insertion of a new cartridge. In the M1, the "kick" is very light, and it is easy to keep the rifle on the target throughout succeeding shots.



Pressing Cartridge Clip Into the Rifle

The advantage of this for defense against high-speed, low-altitude aircraft where the target is present for a fractional period of time readily can be appreciated. Try, for a moment, to visualize a company of soldiers on the march, equipped with semiautomatic rifles. An airplane traveling at a speed of about two hundred miles an hour suddenly appears over the top of the trees. Within a split second, each man can bring his rifle to his shoulder and begin firing eight rounds

almost as rapidly as he can pull the trigger. Defense of this type certainly should add materially to the protection of marching columns.

Springfield Armory now is engaged in the production of the new rifle. At first the usual difficulties to be expected in adapting the rifle to mass production were encountered. Proper manufacturing tolerances had to be established. Considering the uncharted path of semiautomatic-rifle mass production, no unusual problems were encountered that could not be overcome readily. Facilities for production within the limitation of funds have been provided and a small but constant monthly rate is being maintained.

Enthusiastic reports continue to be received from troops to whom the rifle has been issued. This despite the fact that the Springfield long has been considered the acme of perfection in a military arm and many are the shooters who have been wedded to this excellent weapon.—Reprinted from *Army Ordnance*.

Special Activities

Third Army Maneuvers

Fort Bliss, Texas

By MAJOR JAMES T. DUKE (Cavalry) G.S.C.

The concentration of the 1st Cavalry Division (less 1st Brigade), reinforced by elements of the New Mexico National Guard, took place at Fort Bliss, Texas, from August 13-27, 1938.

Comprehensive umpire control was effected through an umpire group consisting of:

Lieutenant Colonel J. P. Aleshire, 8th Cavalry, Chief Umpire; Colonel Dorsey R. Rodney, Cavalry, Senior Umpire for the Browns; Colonel Arthur E. Wilbourne, Cavalry, for the Blues. Other Regular Army officers detailed as umpires were: Captain J. W. Wofford, Cavalry; Major C. F. Houghton, Cavalry; Captain W. G. Wyman, Cavalry; Major P. E. Taylor, Cavalry; Major T. L. Gilbert, A. C.; Lieutenant Colonel T. G. Peyton, Cavalry; Major J. E. Selby, Cavalry; Major D. Menoher, Cavalry; Major R. T. Hollett, Cavalry; Captain J. G. Anding, F. A.; Major Guy Kirksey, A. C.; Captain F. A. Pettit, C. E.; Major W. A. Falck, Cavalry; Major C. Burgess, Cavalry; Major J. P. Scott, Cavalry; Captain J. E. Noyes, C. E.; Captain W. Hayford, F. A.

188 reserve officers reported for duty and were assigned to the various Regular Army units for participation in the maneuvers.

THE MANEUVERS

FORCES INVOLVED:

Blue Force:

- 7th Cavalry;
- 1st Squadron, 8th Cavalry;
- 120th Engineers (N.M.N.G.) (less one battalion), motorized;
- 1 Battalion, 82nd Field Artillery;
- 1 Platoon, Armored Car Troop No. 1;
- Auxiliary Troops.

Mission: (See Sketch No. 1).

Having concentrated at Leasburg (10 miles northwest of Las Cruces), the Blue Force was directed to interrupt traffic on the Southern Pacific Railroad between Alvarado and Newman, and to drive all Brown forces found east of

the Franklin-Organ mountains to the south of the New Mexico-Texas state line.

Brown Force:

- 8th Cavalry (less 1 squadron);
- 111th Cavalry (N.M.N.G.);
- 82nd Field Artillery (less one battalion);
- Armored Car Troop No. 1 (less one platoon);
- Auxiliary Troops.

Mission:

The Brown Force represented the spearhead of the operations of a coalition of Brown powers invading North America, with a base at Tampico. Mexico loyally adhered to her traditionally friendly attitude had opposed the landing of the Brown forces, but had been unable to arrest the hostile advance. Upon arrival at Fort Bliss, the Brown force had been given the general mission of:

- (a) Protecting the railroad line running northeast of El Paso.
- (b) Destroying enemy troops encountered east of the Franklin-Organ mountains.

RESUME OF OPERATIONS:

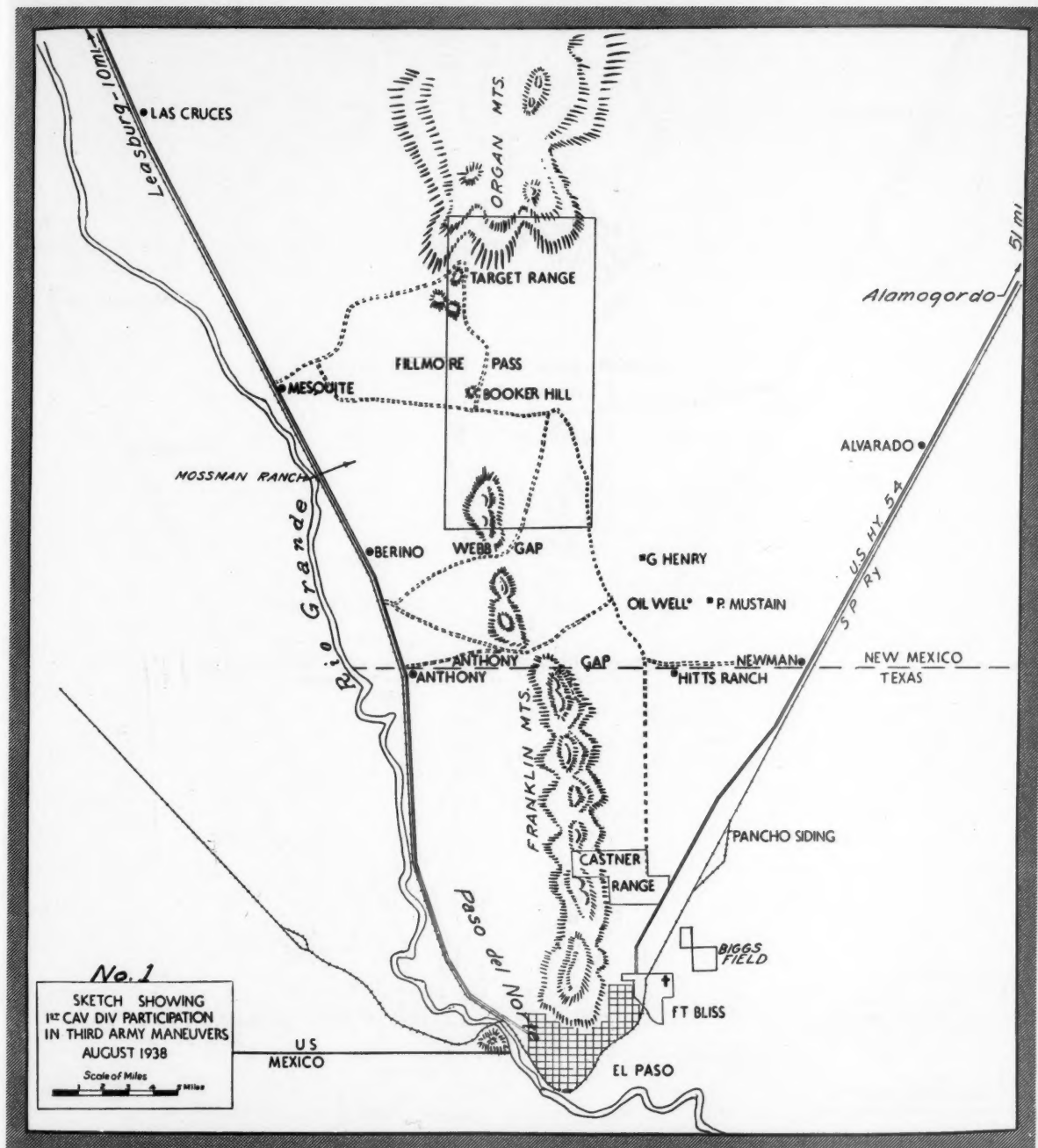
August 22nd: (See Sketch No. 2).

The Blue force, having reached Las Cruces on August 21st, resumed its advance and went into bivouac on the Fort Bliss target range under cover of an O.P.L.R. During the march the Blue artillery column was attacked by Brown scout cars with the loss of 2 men and 4 horses. Two Blue armored cars on a reconnaissance mission to Newman were captured by Brown outposts.

The Brown force advanced to the northeast and went into bivouac at Newman under an O.P.L.R. A detached troop occupied critical high ground near Hitt's ranch.

August 23rd: (See Sketch No. 3).

An active Blue air service informed the Blue commander that the Brown force had evacuated their bivouac at Newman by 1:00 AM and that by 5:00 AM Brown troops were



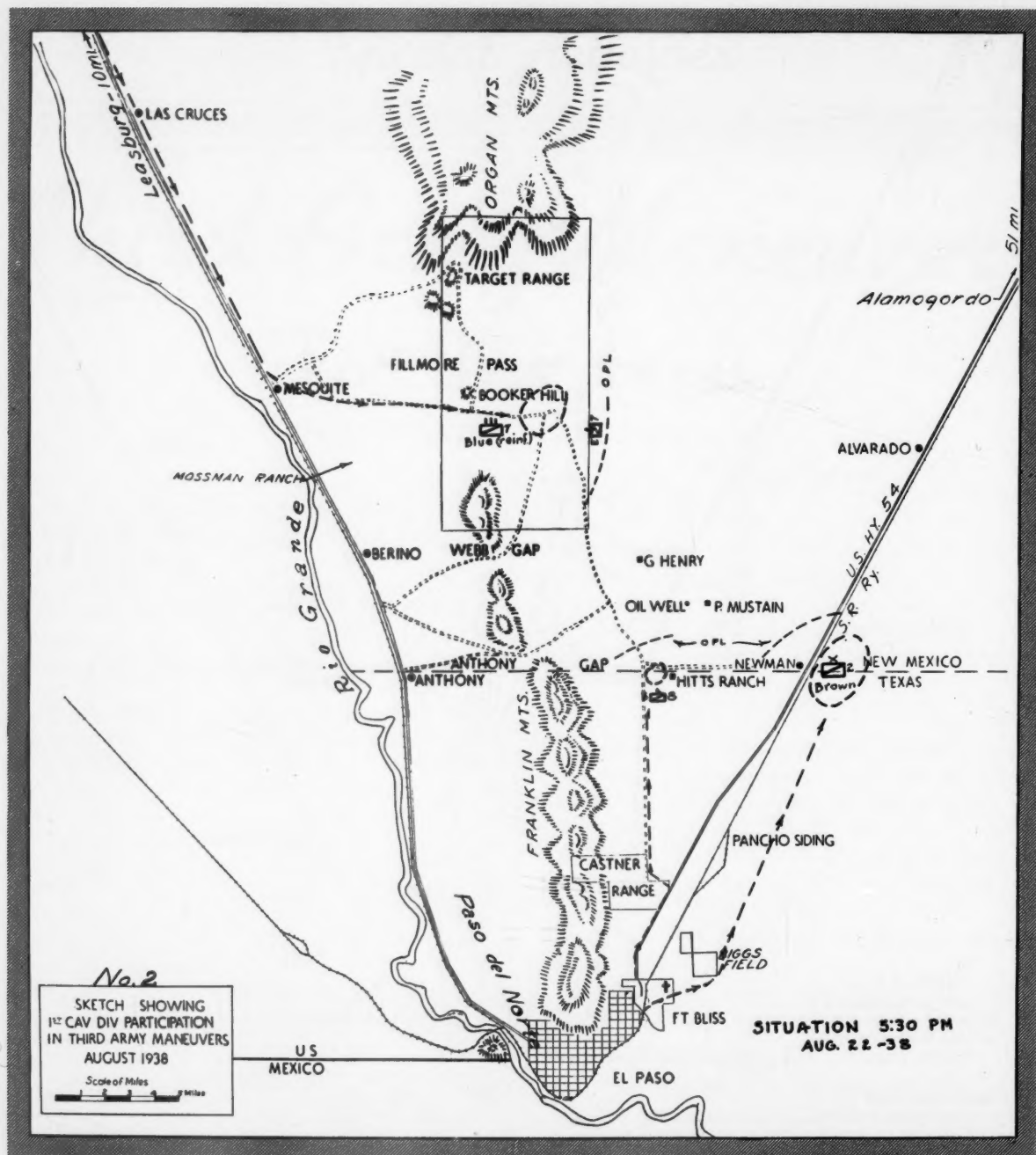
moving north on the Fort Bliss target range road. Actually the Brown force was advancing northwest in two columns. The Blue force advanced south on the target range road, encountering the Brown left column. A combined attack by the Brown troops against the head and east flank of the Blue force resulted in a Blue retirement. Umpire decision ruled the Blues two miles west of Booker Hill to remain there without ground or air reconnaissance until 12:00 noon.

Shortly after 1:00 PM (see Sketch No. 4) the Blues effected a sharp attack against the Browns in bivouac on

the target range. This attack was met by the Browns in dismounted action, and the attack was ruled unsuccessful.

At 5:00 PM the Blue commander was advised that a Brown motorized infantry regiment was in the vicinity of Anthony for the purpose of seizing El Paso; that the first Brown corps would begin arriving at El Paso August 25th. He was directed to expedite the accomplishment of the destruction of Brown cavalry and to assist in the securing of El Paso.

At the same hour the Brown commander was advised of the position of the Blue infantry near Anthony, and also



of the arrival of the first Brown corps in El Paso commencing August 25th. He was directed to hold El Paso as a railhead at all costs.

The Brown commander decided to execute delaying action with the first delaying position west of Webb Gap.

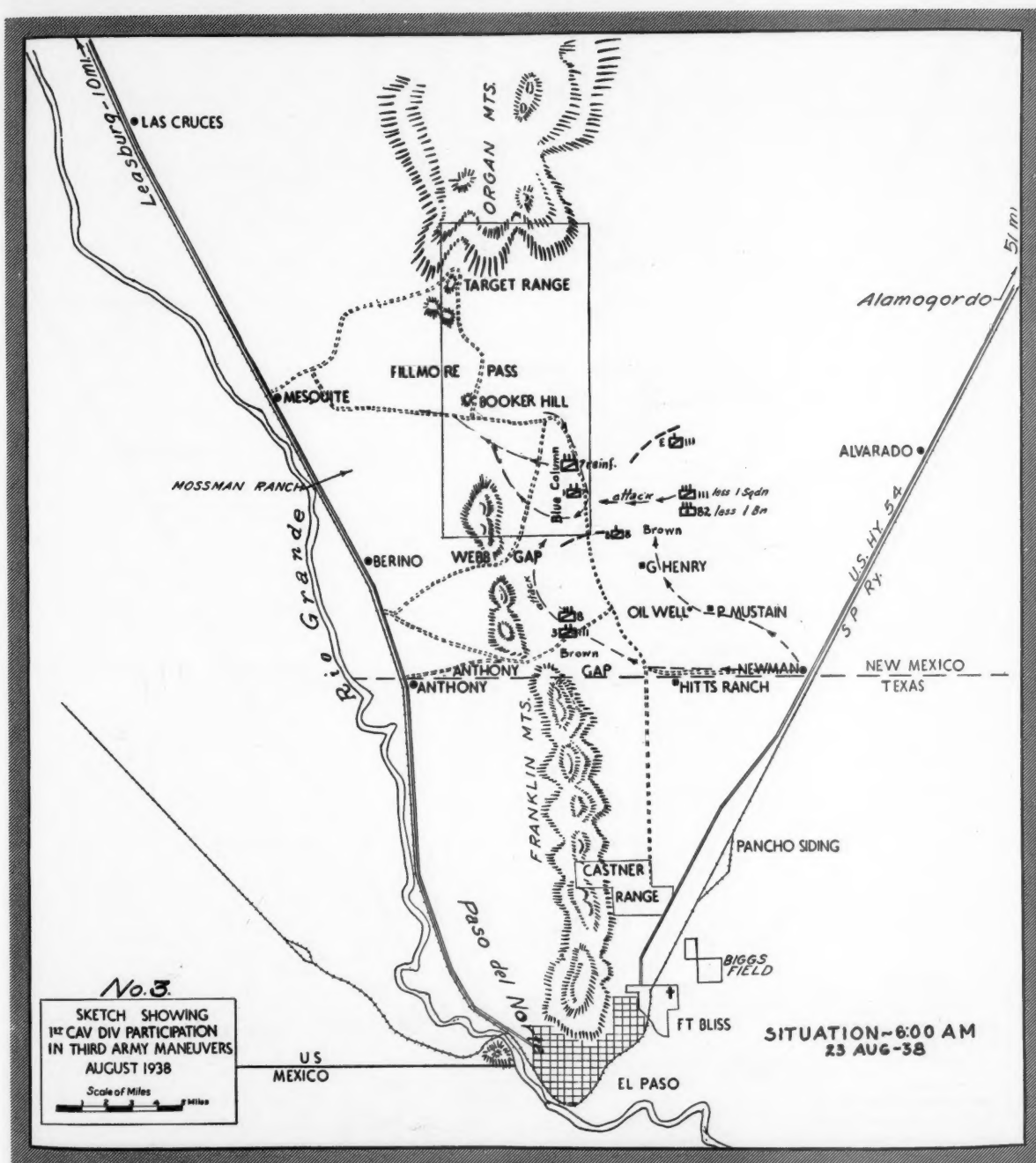
August 24th. (See Sketch No. 5).

The Blue force advanced south on its mission of destroying the Brown cavalry. Due to the threat of Blue infantry movements via Anthony Gap, the Brown force effected withdrawal to a defensive position northwest of Hitt's

ranch. During the afternoon a Blue turning movement consisting of the motorized engineers, covered by armored cars, was unsuccessful in an effort to attack the Brown rear.

August 25th (See Sketch No. 6).

Operations on this date consisted of an attack by the Blue force against the Brown force in a final position near Castner's range. Again on this date the Engineers, covered by armored cars, attempted the encircling movement against the east flank of the Brown force. In attempting to widen the encirclement they attempted to move across



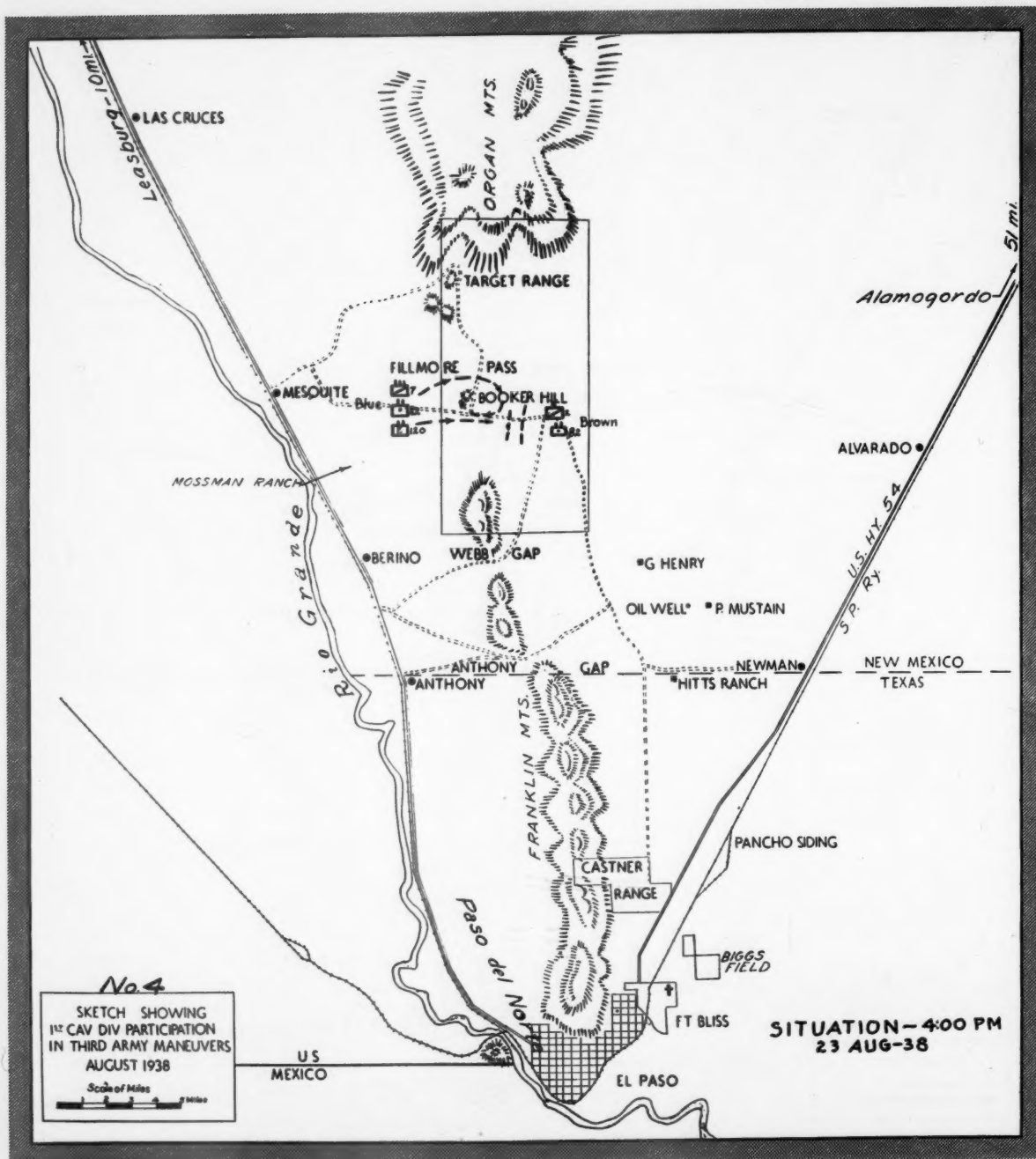
country from Newman to the east, but became bogged down on the sandy trails. At the conclusion of the exercises they were preparing to move dismounted southwest across country to make an attack.

A smoke bomb signaled the termination of the maneuver at 8:20 AM.

Blue commander's plan at termination of maneuver—The advance guard was to attack dismounted, supported by the Provisional Machine Gun Squadron; 1st Squadron 7th Cavalry, to move under cover around the Brown west flank to the mountainous country in that vicinity from

which it would attack the Brown left; 2d Squadron, 8th Cavalry, to remain in mobile reserve, advancing under cover prepared to attack on regimental order; the artillery to support the attack from the positions then held.

Brown commander's plan at termination of maneuver—The 8th Cavalry and 82d Field Artillery to continue withdrawal, when forced to do so, south along the west side of U. S. Highway 54, taking up successive delaying positions. The 111th Cavalry to maneuver generally west from the vicinity of Tobin's Ranch, with a mission of delaying, when necessary, any Blue envelopments until



the 8th Cavalry could fall back; 111th Cavalry to then withdraw southward.

Comments and recommendations—When operating against enemy cavalry or mechanized troops the importance of a cavalry command's habitually marching under cover of darkness in order to secure some measure of surprise and to prevent being surprised was evident throughout the maneuver.

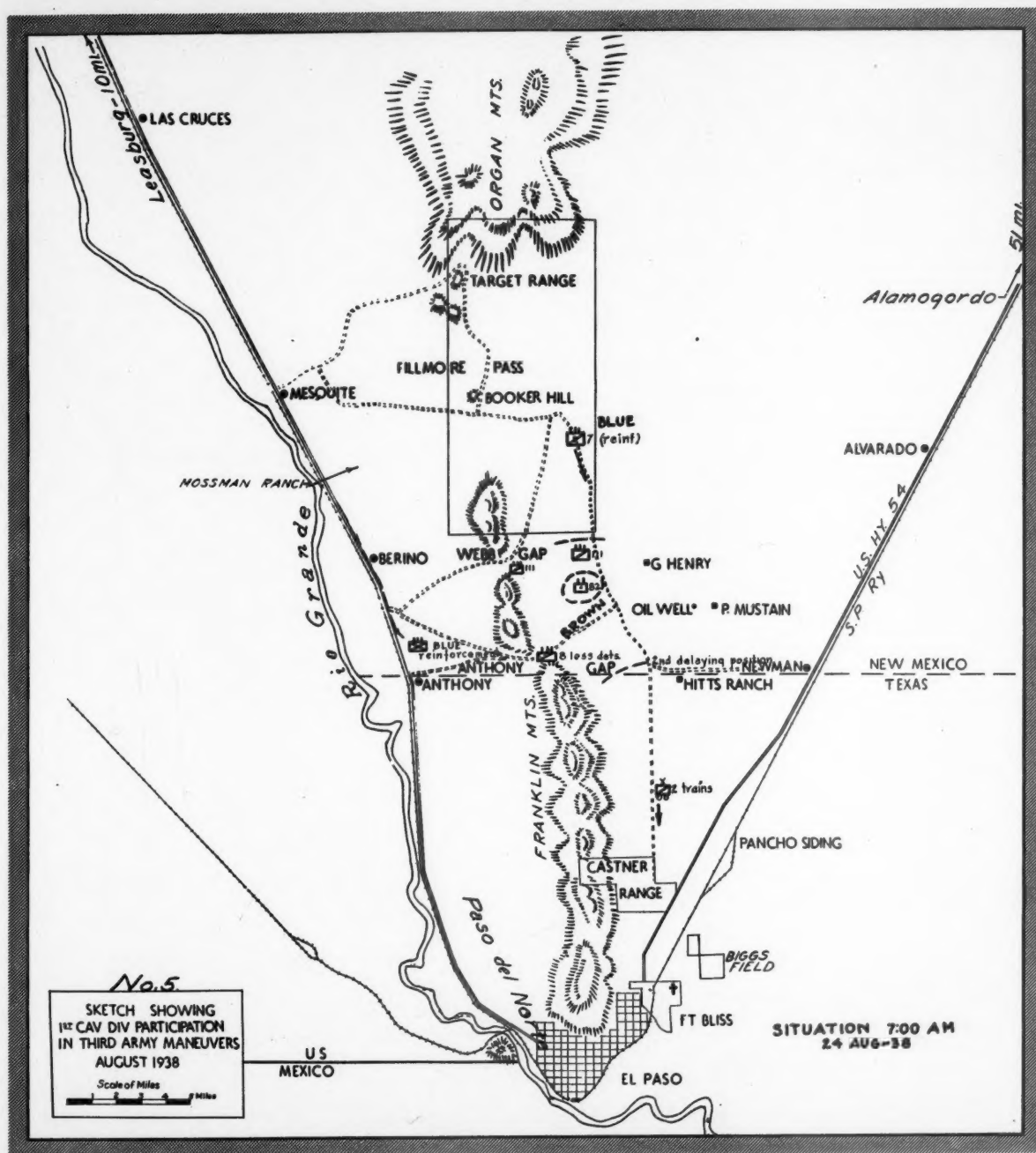
Whenever feasible and consistent with the assigned mission the advisability of utilizing the mobility of cavalry to maneuver an opposing force out of an occupied

position rather than attacking the enemy in the selected position was illustrated.

The paramount importance of unceasing reconnaissance and utilization of terrain was constantly demonstrated.

The necessity for commanders of all ranks to plan continuously (or require members of their staffs to do so), concerning the timely supply of rations and water for men and horses was brought out by certain failures in this regard. That individual cooking will often be required by cavalry was indicated.

The great tactical value of securing terrain which will



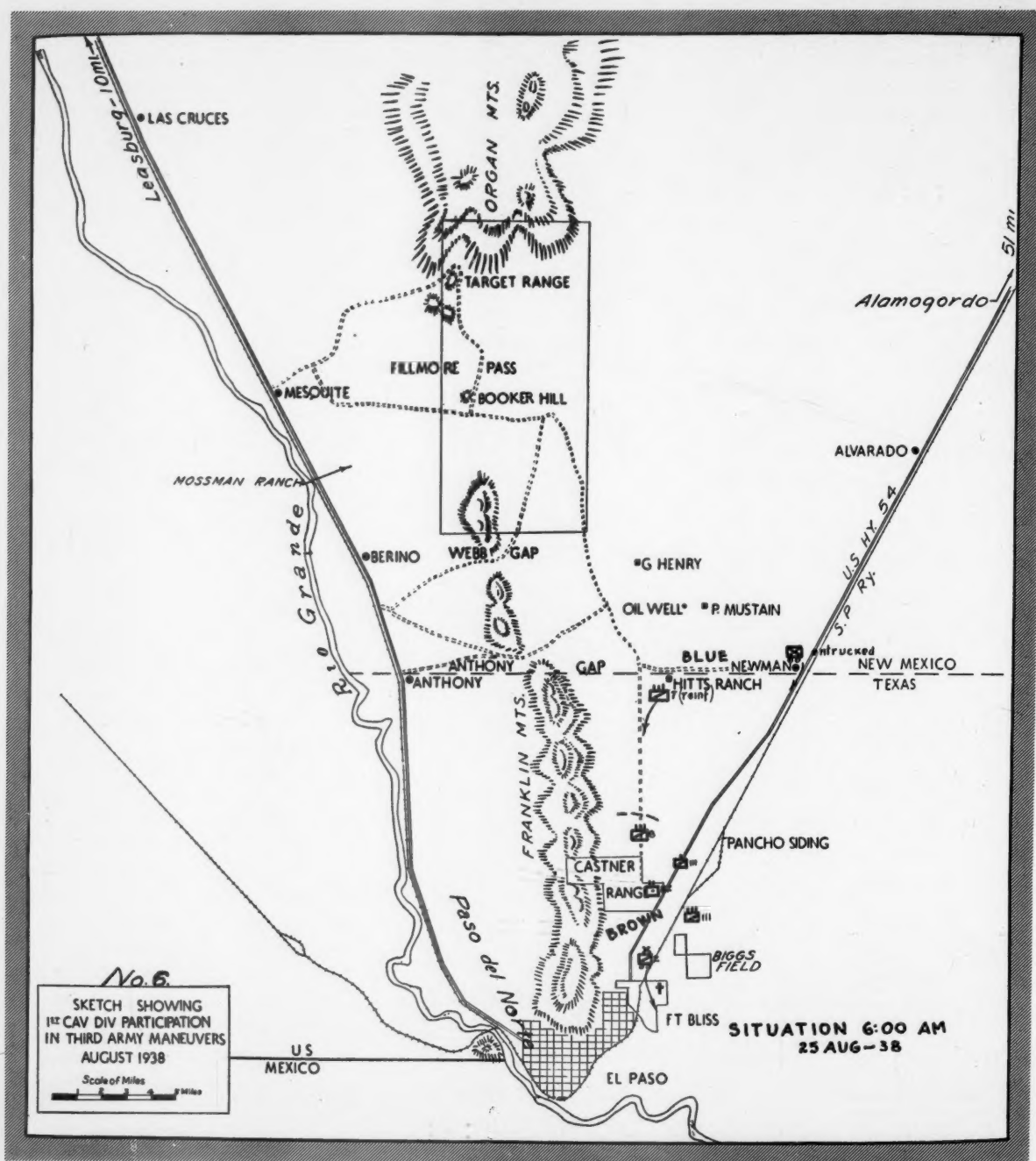
permit artillery observation and the subsequent employment of all available artillery at the earliest possible moment was demonstrated in all actions.

Certain developments during attempted encircling maneuvers of the motorized engineers showed the necessity for scout of armored cars preceding the column by *several miles* in order to give timely warning to the latter of road blocks or other opposition. Irregular formations, rather than a continuous column of regularly spaced vehicles should be taken by truck columns to confuse or deceive enemy air observation.

The danger of wide dispersion of a cavalry force when operating against cavalry was apparent.

The necessity for 360° security by all forces, large and small, when operating against cavalry or mechanized units was evident.

The necessity for meticulous training of small units and individuals to attain perfection in the execution of the various phases of combat was apparent, namely: approach and deployed formations; use of cover, for horses and men, both mounted and dismounted; attack formations, both mounted and dismounted; cooperation between adjacent



units; prompt transmission of information through channels to the rear; continuous employment of security and reconnaissance patrols or individuals in all situations; maintenance of liaison and connection between all groups of a force, both laterally and to the rear and front.

ADDITIONAL COMMENTS ON THE FORT BLISS PHASE OF THE THIRD ARMY MANEUVERS BY AN OBSERVER:

1. One of the force commanders made a great point in the distinction between the operation of a covering force and an advance guard in their advance, stating that the

covering force moves by bounds from one prominent terrain feature to another. As a matter of fact this is also one proper method of movement of the elements of an advance guard. But due to the nature of this terrain where there are no prominent terrain features, a covering force (or an advance guard) must either move at a prearranged distance of the main body or by leaps of certain distances or time spaces.

2. The covering force of one of the forces became lost

*ED. NOTE: A forthcoming article will deal with the use and employment of a covering force.

and did not cover the advance of the main body, which continued to advance with no protection except that provided by a few scout cars. This was due primarily to the lack of proper connecting files. Probably no feature of training has had more time or practice put on it for many years than advance guard, but unless some definite system of providing for connecting files is adopted in an organization the proper functioning of advance guards and covering detachments is bound to be inefficient. The only statement in regard to connecting files in Cavalry Field Manual states, "Connection between the elements of an advance guard and the main body is maintained by connecting groups." It is believed the proper procedure in regard to connecting files is for the large unit to send forward a small detachment of three or four mounted men under a competent noncommissioned officer who will cause a file to drop off when necessary. The men dropped off to rejoin when practicable or be replaced by other men sent forward. In the case of mechanized units these men should be motorcyclists.

3. The rate of march of one of these forces across country was less than 3 miles per hour. The rate ordered was 6 miles per hour. The rate of march made could probably have been increased had not the covering force become lost from the command, but it is evident that a rate of six miles across any country is difficult to maintain except for very short distances and is only for emergency use.

4. There was a great tendency to neglect proper security measures, especially when the command was tired. On one occasion a regiment was halted in column on a road with its rear within two miles of known enemy elements. It was surprised by machine gun fire and a squadron ruled out of action. It had no security detachments out.

5. While scout cars provide useful elements to temporarily guard or watch cross roads and carry out like missions, they should not be used to provide security to a command in bivouac or on the march to the exclusion of other elements. This was done in at least one instance. The tendency to neglect proper march and other outposts and to depend for the necessary security on scout cars has grown up since the advent of the scout car. This is ordinarily an improper use of the scout car.

6. Not enough use was made of horse patrols for security and information. One force failed to discover and protect itself from a movement of the other force on the morning of August 23 because of the almost entire absence of horse patrols.

7. Command posts of units the size of a brigade should have more permanency than was evident in these maneuvers and they should be better organized. One staff officer with a couple of clerks in a motor vehicle is not sufficient.

8. Too much reliance was placed on radio, which did not always function, and detachments of mounted messengers at regimental or brigade command posts were conspicuous by their absence.

9. In such country as that in which these maneuvers were held, motor vehicles are practically helpless off the

roads. The only motor vehicles which could operate at all effectively were the scout cars and even they moved at very slow rates of speed. This seems to indicate that the trains of a cavalry command should be provided with motor vehicles with four wheel drive. On each side of the border for many miles this same kind of terrain is in evidence and horse elements are the most effective forces available.

10. On one occasion a force of Engineers in motors was sent across country to make an enveloping attack. It became stuck in the sand and was lost for action for the remainder of the day. Here again is illustrated the necessity of carefully considering the terrain in deciding on the use of any motorized unit.

11. The commander of a brigade or regiment must spend a considerable part of his time at this command post during or immediately preceding an action. He is too difficult to locate if he is riding his horse at great distances from his command post. In case he wants to go to any distance he should have a scout car available. This gives him a little protection, allows him usually to move more rapidly and if it has a radio allows him to keep in constant communication with the command post.

12. This maneuver was ordered to be uncontrolled. However, towards the end control had to be introduced to prevent the exercise from becoming too involved. It is believed that in practically all cases especially where hardship would otherwise result and untrained troops are involved, maneuvers should be rigidly controlled.

13. It is a grave error to attempt to use a regimental staff as a regimental and brigade staff at the same time. Sufficient personnel is not available and units not belonging to the staff's own regiment are usually slighted.

14. During the withdrawal and retirement on August 24 no attempt was made by the pursuing force to execute a wide envelopment with horse cavalry around the one available flank. All attacks were so restricted as to be virtually frontal. Slight pressure against the hostile front while the mass of the cavalry moved widely around the flank would have rolled the enemy out of his successive positions in a hurry without the necessity of serious combat.

Wanted

A well known writer who has use for *The Cavalry Journal* for research purposes requests that we locate if possible a copy of the *Journal* for July, 1923, July, 1926 and July, 1927. Should any member of the Association have available copies of those issues it would be appreciated if they were forwarded to this office. Reimbursement will be made at the rate of 75c per copy.

ALSO WANTED

Any available translations of General von Poseck's "German Cavalry in Belgium and France, 1914" and "German Cavalry in Poland, 1914-1915." This eminent German work was translated and published by The U. S. Cavalry Association about 1923. Reimbursement will be made at the rate of \$2.50 per copy.

First Cavalry Brigade Participation in Third Army Maneuvers, San Antonio

By CAPTAIN HARRY C. MEWSHAW, Cavalry

In compliance with instructions from higher headquarters, the First Cavalry Brigade, commanded by Brigadier General Kenyon A. Joyce, was ordered to assemble at Dodd Field, Texas, preparatory to participation in the Third Army Maneuvers of 1938, as part of the I Brown Corps.¹

The Brigade (less 12th Cavalry) was ordered to march to the assembly area. The 12th Cavalry proceeded by rail and motor transportation from Fort Brown and Fort Ringgold and arrived at Dodd Field, August 9, 1938.

The Brigade (less 12th Cavalry) departed from Fort Clark on August 5, 1938 and arrived at Dodd Field on August 10, 1938. (Distance marched—134 miles.)

The Brigade Commander desired that the horses arrive in the best possible condition; accordingly the rate of march was 5 miles per hour, no march was in excess of 26 miles and the time was 4:30 AM, in order to avoid the excessive heat of the late morning.

After a rest of two days, the Brigade was directed to its bivouac area to be ready to participate in the maneuvers at zero hour.

The general situation was briefly as follows: A coalition of Brown powers declared war on the U. S. (Blue) and gained control of the South Atlantic. The Blue fleet was engaged in the Pacific Ocean and was unable to detach any units for operations elsewhere. Mexico, loyally adhering to her traditionally friendly attitude toward Blue, opposed the landing of Brown forces but was unable to prevent a strong Brown landing at Tampico. This Brown force and others which landed at Port Isabel, Port Aransas and Corpus Christi advanced northwest against San Antonio and El Paso. A strong Brown convoy in the Gulf of Mexico was sailing north toward the Gulf Coast of Mississippi, apparently with the mission of opening the Mississippi River. Blue naval offshore patrols encountered strong Brown scouting forces in the Gulf of Mexico but none along the Atlantic Coast. Except for coastal and frontier guards, most of the Blue Third Army was initially concentrated on the Pacific Coastal Frontier, but was being moved to protect the Southern Land and Coastal Frontier, with its reserve held in the vicinity of Fort Francis E. Warren, Wyoming.

The special Brown situation was as follows: The I Corps debarked in the CORPUS CHRISTI-PORT ISABEL area and moved northwest with the mission of destroying the ammunition depot at BOERNE.

In order to get the correct picture, it should be realized that the maneuver was predicated on certain prohibitions

applicable to both combatant forces, which restricted their movements and which tended to create artificial situations. These prohibitions were:

a. The maneuver necessarily had to be held on the Camp Bullis Reservation and leased property contiguous thereto.

b. Certain contiguous private properties were prohibited to mounted troops while others were prohibited to all troops.

c. On some private properties the troops were restricted to roads and trails.

d. Private fences could not be cut.

e. Water was very scarce and could only be obtained at certain designated points.

f. San Antonio City was prohibited terrain.

g. Red Bluff Creek (8 miles southwest of Boerne) and the Cibolo River between Randolph Field and Bracken were unfordable.

The maneuver itself was free and uncontrolled during the four days and nights.

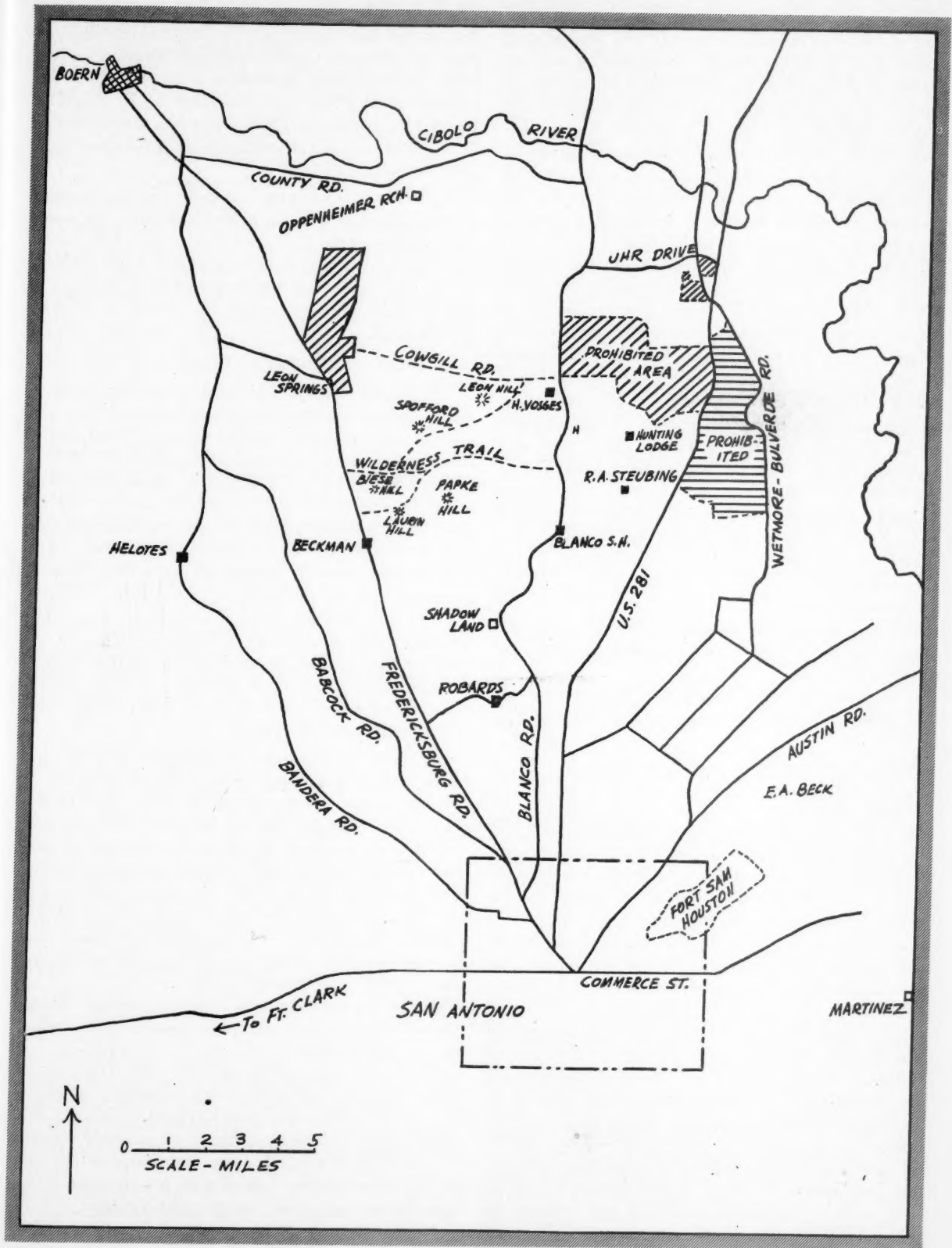
The Brown Corps bivouacked during the night of August 13-14 in its assigned areas. Zero hour was at 5 AM, 14 August '38, at which time the only information of the enemy was to the effect that a division with attached Cavalry was reported to be at Boerne. The I Corps was to advance to a new bivouac area just northeast of San Antonio. (See sketch.)

SUNDAY 14 AUGUST

The 1st Cavalry Brigade with 2nd Battalion 15th F. A. (motorized) and Troop A, 8th Engineers (motorized), attached marched on its assigned mission to screen the advance of the Brown Corps and to seize and hold the high ground astride the BLANCO ROAD just south of the RJ BLANCO ROAD—WILDERNESS TRAIL, until relieved by the Infantry. In this connection, attention is invited to the fact that had it not been for the restrictions already mentioned, the natural line of advance for the Brigade and the Corps would have been centered on the FREDERICKSBURG ROAD.

The water situation being a vital factor, the Brigade Commander made his first objective the seizure of water tank cars at ROBARDS. Scout car reconnaissance was ordered as far north as the CIBOLO RIVER to report any contact with the enemy. Negative information was ordered reported on the quarter and three-quarter hour by the 5th Cavalry and on the half and even hour by the 12th Cavalry scout cars after 5:30 AM. Troop A, 8th Engineers (motorized) with one scout car section, 5th Cavalry attached, was ordered to secure the tank cars at ROBARDS until the arrival of the Brigade. When the tank cars were secured, one platoon of Engineers was ordered to establish road blocks at certain critical junctions and then to report back to ROBARDS.

¹During the period September 1, 1937 to September 1, 1938, The First Cavalry Brigade (or elements pertaining to it) was in the field for a period of approximately five months. The exercises participated in were—The Proposed Infantry Division Tests at Fort Sam Houston, the First Cavalry Division Maneuvers at Balmorhea, and the Third Army Maneuvers at Fort Sam Houston.



The Brigade marched in one column by the most direct route to ROBARDS, where it watered and fed and then proceeded on its original mission, accomplishing same by 1:50 PM after a march of thirty-three miles. In this connection it may be of interest to state that the Brigade Commander informed the Corps Commander, Major General Frank W. Rowell, that the Cavalry would occupy its assigned objective by 6:00 PM unless held up by superior enemy forces. Since no serious enemy resistance was encountered, the Brigade was able to accomplish its mission some four hours ahead of scheduled time.

The 2nd battalion 15th F.A. (motorized) was directed to move to a bivouac area just northeast of SAN ANTONIO; to be in this bivouac area by nine AM 14 August prepared for immediate movement upon receipt of further orders. At 11:20 AM, this battalion was ordered to complete another bound by 3:00 PM to CR BLANCO ROAD-COKER ROAD. However, as previously stated, the Brigade reached its objective prior to 3:00 PM, in consequence of which the Artillery was ordered to move to a position in support of the Brigade just south of BLANCO SCHOOL HOUSE.

Counter reconnaissance detachment No. 1 commanded by Captain C. E. Byers, 5th Cavalry and consisting of—

- Troop A, 5th Cavalry,
- 1 .50-Cal. M.G. Squad and
- 1 Radio Pack Set,

seized, by 2:30 PM, without serious opposition, the water supply at BECKMAN, after a total march distance for the day of 35 miles.

Counter reconnaissance detachment No. 2, commanded by Captain O. R. Stillinger, 12th Cavalry, and consisting of—

- Troop B, 12th Cavalry,
- 1 .50-Cal. M.G. Squad and
- 1 Radio Pack Set

seized, by 6:00 PM, after many encounters with the enemy, the northern exit of the defile (caused by prohibited areas) on U. S. HIGHWAY 281 just south of RJ U. S. 281—WETMORE ROAD. The total distance marched this date by this detachment was forty-seven miles. (The march of the Brigade and the flank detachments was accomplished without loss of any animals, despite the fact that this particular day was one of the hottest of the summer, the temperature being 103 degrees.)

The Brigade bivouacked for the night on the position ordered held, with the 12th Cavalry to the east of BLANCO ROAD (Incl.) and the 5th Cavalry to the west thereof (Incl.). Horse reconnaissance to the front disclosed the enemy occupying a general line LAURIN HILL—south end of HOGAN RIDGE—PAPKE HILL—H. VOSGES. Scout car reconnaissance on both flanks and toward BOERNE indicated much enemy activity south of the CIBOLO RIVER and between the FREDERICKSBURG ROAD and U. S. HIGHWAY 281. Three road blocks, covered by fire, were established by the Engineers at critical road intersections to protect the left and rear of the Brigade. Terrain restrictions pro-

tested the right (east) flank. During the night 14-15 August, Counter Reconnaissance Detachment No. 1 reported a reinforced Cavalry regiment, identified as the 112th Cavalry (Blue) in bivouac at 10:10 PM near the junction of SCENIC LOOP—BABCOCK ROADS. Counter Reconnaissance Detachment No. 2 reported Co. D, 144th Infantry and elements of the 3rd Battalion 144th Infantry opposed to it.

The I Corps started its movement from its bivouac areas at noon. The 2nd Division moved its Infantry by motor and marching to the E. A. BECK area (just N.E. of Ft. Sam Houston) and its artillery to FORT SAM HOUSTON. This movement was completed by 4:30 PM. The 45th Division moved after dark by truck to FT. SAM HOUSTON.

MONDAY, 15 AUGUST

The Brigade continued to hold its previous position and to develop the Blue situation by means of horse and scout car reconnaissance. It was ascertained that enemy Infantry was occupying a general line BRIESE HILL—SPOFFORD HILL—LEON HILL. Horse patrols were unable to penetrate beyond this line. Scout car reconnaissance to both flanks and the enemy's rear disclosed considerable activity south of COUNTY ROAD. The 12th Cavalry scout car platoon located a Blue Medical Regiment with its installations at RJ CURRY—COUNTY ROADS, and was awarded the capture of the 36th Division telephone exchange at 10:30 AM. The detachment on the east flank (Counter Reconnaissance Detachment No. 2) reported that at 9:20 AM there was one company 144th Infantry and probably the 124th Cavalry with one 75-MM. gun opposed to it.

When this was reported to the Corps Commander and reinforcements suggested, two reinforced platoons of Infantry in trucks were ordered to be attached to this detachment. The 9th Infantry furnished these platoons, each of which consisted of a platoon of Infantry, one section of M.G.'s and one tank. One platoon was ordered to move via U. S. HIGHWAY 281 and reported at 3:15 PM. The other platoon was ordered to move via the WETMORE—BULVERDE ROAD and did not report until the next morning, having been held up by enemy road blocks which were covered by fire.

Late in the afternoon, the reinforced Counter Reconnaissance Detachment No. 2 was unsuccessfully attacked by the 124th Cavalry.

The Brown Corps advanced after dark. The 2nd Division moved by marching in two columns to an assembly position in the vicinity of R. A. STEUBING. The 45th Division moved by trucks to an assembly position near SHADOWLAND. The movement of the 2nd Division was completed about 3:00 AM and that of the 45th Division by about 7:00 AM, 16th August.

TUESDAY, 16 AUGUST

The 1st Cavalry Brigade was relieved at daylight by elements of both Infantry Divisions and withdrew to

HUNTING LODGE, reaching there about 9:00 AM when it became the Corps reserve. The 2nd Battalion, 15th F.A. reverted to its regiment.

During the afternoon, in compliance with orders from Corps, Troop A, 5th Cavalry (Counter Reconnaissance Detachment No. 1) was attached to the 45th Division and the 2nd Squadron, 5th Cavalry, commanded by Major George D. Wiltshire, was attached to the 2nd Division. Scout car reconnaissance was performed on both flanks and to the enemy rear.

Consequent to Corps orders, to create a diversion on the east flank, Counter Reconnaissance Detachment No. 2, reinforced by the two platoons of the 9th Infantry, attacked about 5:00 PM to the west. This attack was successful, the enemy being driven north of UHR DRIVE. The Detachment then withdrew under cover of darkness to its original position and the Infantry elements (platoons and tanks) rejoined their regiment.

WEDNESDAY, 17 AUGUST

The Brown Corps attacked; the 1st Cavalry Brigade remaining in Corps reserve. Scout car reconnaissance was continued around Blue's flank and rear. Through reconnaissance revealed that the enemy defeated the night before by Counter Reconnaissance Detachment No. 2, had withdrawn, by 7:30 PM, toward the west.

THURSDAY, 18 AUGUST

The I Corps continued its attack. The 1st Cavalry Brigade (less detachments) was given the mission to move toward a general line along BLANCO ROAD south of the CIBOLO RIVER and to assist the Infantry advance by attack against enemy left and rear installations. Accordingly, the Brigade left camp at 2:00 AM. It marched south to R. A. STEUBING, east to U. S. 281, north on U. S. 281 to junction with WETMORE—BULVERDE ROAD (where Counter Reconnaissance Detachment was picked up), north on U. S. 281 to UHR DRIVE, west to BLANCO ROAD, the point arriving at 6:00 AM. Up to this juncture only slight enemy resistance had been encountered; here however, what was estimated to be one Battalion 141st Infantry and one Squadron 124th Cavalry with MG. attachments blocked further advance. This enemy was engaged and finally defeated and driven to the northwest. At 9:55 AM the Brigade was reorganized and, under protection of road blocks established and guarded by Troop A, 8th Engineers, marched north on BLANCO ROAD—then west on COUNTY ROAD. At the termination of the maneuvers the Brigade was attacking and overriding enemy installations north of OPPENHEIMER RANCH.

The scout car platoons furnished march protection to CR U. S. 281—WETMORE—BULVERDE ROAD. At 3:40 AM 2nd Lieut. E. J. Treacy, 12th Cavalry, with a section of four scout cars, each carrying explosives, smoke candles and an Engineer demolition expert, was ordered to proceed, by little traveled routes north of the CIBOLO RIVER, to BOERNE to destroy the ammunition

depot and railroad siding. It will be recalled that this was the Corps mission. Two of the scout cars reached BOERNE and succeeded in simulating the demolitions. The final umpire ruling was to the effect that the exploit was executed legitimately and successfully, but that the damage inflicted would not have been extensive.

The Brigade bivouacked on the night of August 18-19 at OPPENHEIMER RANCH, then marched to its original bivouac area at DODD FIELD on the 19 August. It left DODD FIELD on 20 August and arrived at Fort Clark 24 August.

In conclusion, attention is invited to the fact that General Joyce kept his force well in hand, so as to be prepared to meet any emergency or to accomplish any assigned mission. When the necessity for quickly seizing the tank cars at ROBARDS became apparent, the fastest moving elements (scout cars and motorized Engineers), were used. The Brigade Commander endeavored at all times to anticipate and accomplish that which he believed would tend to further the plans of the Corps Commander. This was the primary reason for keeping the two counter reconnaissance detachments on the FREDERICKSBURG ROAD and U. S. HIGHWAY 281.

The Brigade lived up to the best traditions of horse Cavalry. It performed all missions assigned to it under conditions that were arduous, and was commended for its efficient service by the Corps Commander.

Comments

1. There was a decided tendency throughout the maneuvers to use scout cars as combat cars. Such use of these vehicles would of course very quickly cause them to be eliminated. The casualty list, as assessed by the umpires, was 140% for the scout cars with both forces. An extenuating consideration for this, however is that the Brigade was attempting to accomplish a mission with seven scout cars when twenty should have been available for the purpose. (NOTE: The Blue Forces had no scout cars, therefore, the 1st Cavalry Brigade furnished them one-half of its cars.) With one .50 Cal. M.G., two .30 Cal. M.G.'s and one Thompson sub-M.G., fire power is so formidable that the psychological reaction on the crews apparently is to hunt for rather than to avoid trouble. Perhaps consideration should be given to the use of a commercial chassis on which a suitable body (possibly unarmored) could be quickly installed. It is believed the following should be considered: *a.* Can we produce sufficient scout cars of the present model in time for use at the outbreak of war? *b.* Is the cost excessive? *c.* Are the cars so heavily armed as to have a tendency to make the crews anxious to fight rather than to seek for information and get away? *d.* Is cross-country mobility being stressed too much, in view of the fact that most of the work will be done on roads and only occasionally will the cars be used across country? *e.* For use with horse Cavalry, should we not go from the light, flexible unarmored scout car direct to the combat car with no intermediate type?

2. It is believed that light, powerful, radio equipped

passenger cars should be developed and issued as command cars to Brigade and Regimental Commanders. It is also believed that a small light command post truck, with a panel or pick-up body, and of size sufficient to accommodate a radio set, two radio operators and two message center clerks would be more suitable than the 1½-ton truck or a scout car now used.

3. The necessity for an adequate number of motorcycles for messenger service was very apparent.

4. The Engineers were used throughout for locating, establishing, protecting and supervising water holes; for establishing road blocks and for train protection on the march. Twice they were used as combatant troops; first when they were ordered to capture and hold ROBARDS on 14 August and then as a flank guard after the fight on 18 August when they established and manned road blocks near RJ UHR DRIVE—BLANCO ROAD to enable the Brigade to change its direction of march to the north. Every assignment given them was executed most efficiently.

5. The liaison with the Brown air service was all that could be desired. Until the Brigade went in to Corps reserve every message sent to the Corps was first given to the Cavalry.

6. The radio communication was excellent at times and then completely failed at times, apparently because of atmospheric conditions.

7. Habitually a cold lunch and a feed of grain were carried on the saddles; one day's ration was carried by the troops and one day's forage was carried on the supply train. The trains, being motorized, advanced by bounds at the rear of the main body and under protection of one platoon of Engineers.

8. Since it was impossible to secure reliable information concerning the water situation in rear of the enemy lines, it was necessary to make provision for carrying as much water as possible with the command on its march on the 18 August around the enemy east flank. This problem was solved by Major R. A. Isker, Brigade S-4, by having two 250-gallon tanks strapped to a skid and placed on a

one-and-one-half-ton cargo truck. This insured five hundred gallons of potable water in addition to that carried in the filled canteens. For the animals, a three thousand gallon canvas storage tank was obtained from the 8th Engineers and rigged up on a semi-trailer. Twelve hundred gallons of water were carried. This was slightly in excess of one-third capacity of the tank. The high sides prevented the water from spilling out. All canvas buckets were collected and pooled in order to be available for watering the animals and reducing waste to a minimum. Each animal was thereby assured approximately one-and-one-half gallons of water. If no other water were obtainable, it was intended to have the semi-trailer make several trips to the last water hole, so that eventually all animals would have been fully watered.

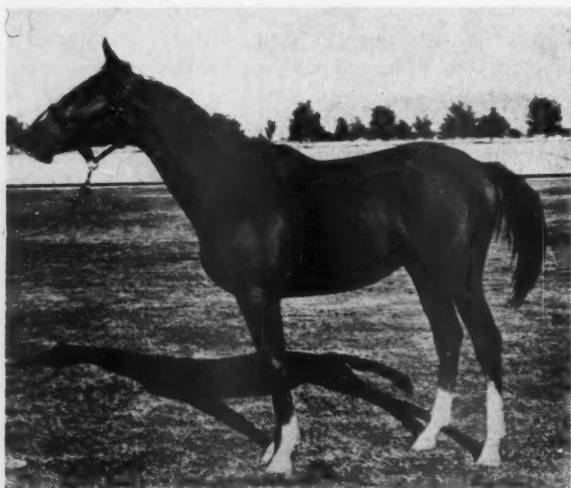
9. For the final day's march and action a map coördinate code was agreed upon between General Rowell and General Joyce to permit report of Brigade progress to Corps without disclosing information to the enemy. In addition, a few simple code groups were agreed upon to control Corps artillery fire on enemy position. The diagram below is believed to be self-explanatory. Examples of messages sent are as follows:*

"ENEMY DRIVEN TO WEST FROM E-4 AND E-5. STRONG RESISTANCE NOW ENCOUNTERED E-6."

"ENEMY DRIVEN TO WEST WITH MATERIAL LOSSES. AM PROCEEDING TO E-8 THENCE D-9. ARTILLERY FIRES NO LONGER DESIRED."

Under a prearranged scheme of the sort, unsigned messages of this nature preserve a degree of secrecy for a limited space of time. Such an arrangement is particularly advantageous in a rapidly moving situation requiring coördination; and where the time element precludes the use of cipher or code.

*EDITOR'S NOTE: Use was made of a local map cross-sectioned with alphabetical coördinates horizontally and numerical coördinates vertically.



"Pampa," eighteen-months old thoroughbred colt presented by Ups and Downs Stables to Lieutenant H. T. Cherry, 8th Cavalry, winner of the most points by officers below the grade of major at the Fort Bliss Horse Show. The Ups and Downs Stables at Roswell, New Mexico, are owned by Lieutenant Colonel H. P. Saunders, Jr., New Mexico National Guard, Commandant, New Mexico Military Institute, and Hon. H. M. Dow, Lieutenant Governor of New Mexico.

Delaying Action in Mississippi

By Major F. W. Koester, 6th Cavalry

(See *Cavalry Journal*, September-October, for "General and Special Situations.")

At the close of hostilities on August 6th the major elements of the opposing forces were disposed as indicated on the accompanying sketch. Following development on this date the Blue commander ordered the main defensive position extended to the west. The 6th Cavalry was to continue protecting the flanks. (See sketch.) Due to demolition of bridges at critical locations on either flank and peculiarities of the road net it was known that any attempted wide envelopment of either flank by any major Brown elements moving by motor would involve a journey of at least four or five hours. An advance to the north by the 4th Division, while it would be unopposed until the Blue defensive position was reached, would nevertheless involve a crossing of Red Creek and an advance of six to eight miles over close and fairly difficult terrain. Numerous swamps limited maneuver to the west. Bluff Creek offered an excellent corridor leading in to the left of the Blue defensive position. The area between Bluff and Black Creeks and for about two miles north of Red Creek was densely wooded with few and very limited fields of fire, and was generally unfavorable for maneuver by cavalry units larger than a platoon. Farther to the north in this sector the terrain was more favorable to carry action and there were several positions suitable for delaying action. Since this sector had to be protected by the 6th Cavalry and reconnaissance had disclosed that the Brown 61st Brigade had advanced to and gained a foothold in the southern end of this sector on August 6th plans were made to oppose any hostile advance in force in this area on the following day.

These plans included the following:

Troop A with its present reinforcements of one platoon of heavy machine guns and one radio pack set was to continue holding its present position and if forced back was to withdraw to and occupy a previously reconnoitered delaying position in the vicinity of RJ 270-A.

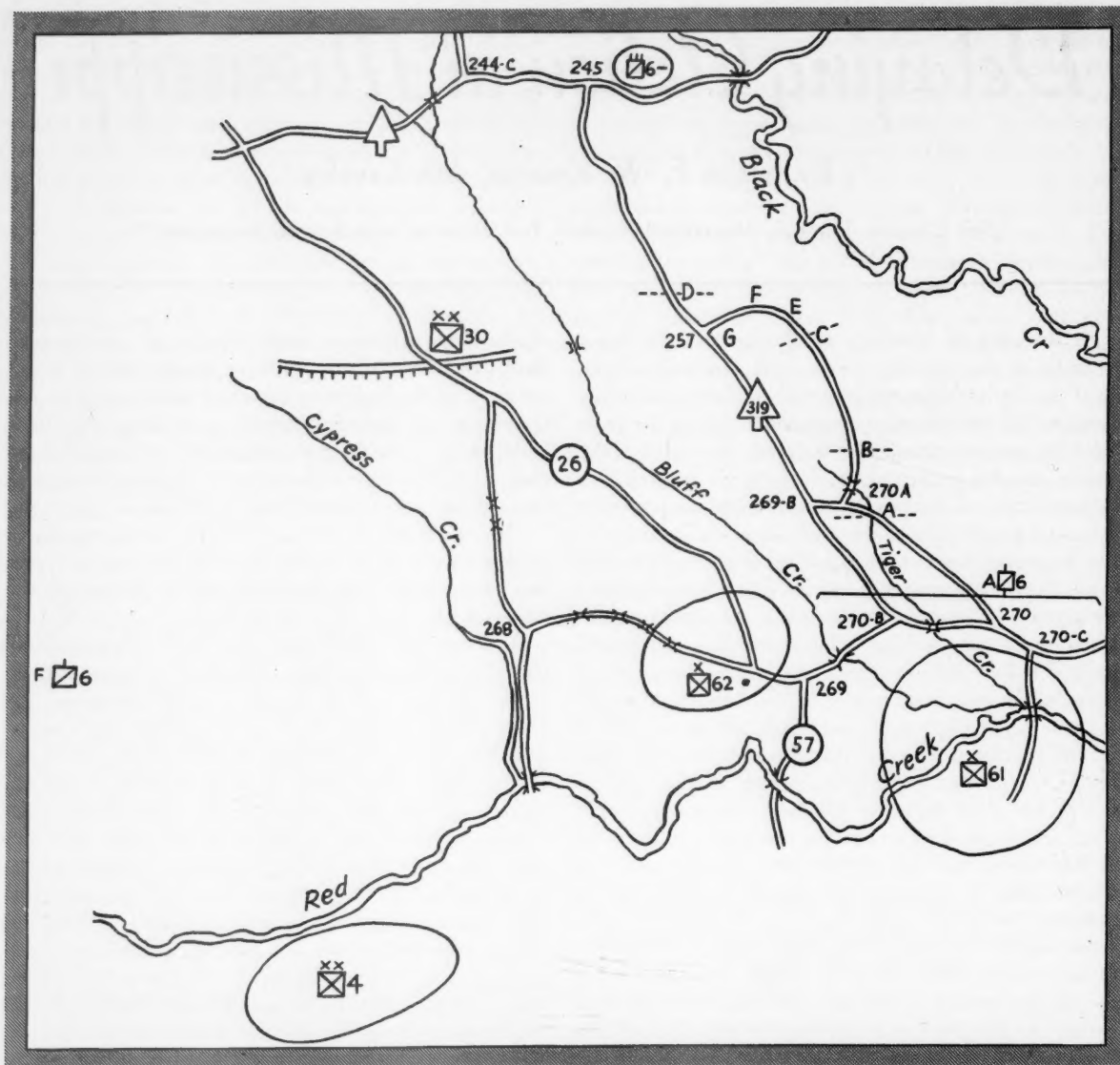
The 2nd Squadron (less Troop F) with one platoon of heavy machine guns attached was to leave the regimental bivouac at 3:00 AM, advance south between Bluff Creek and Highway 319, until it reached the position of Troop A when the latter would pass to control of the 2nd Squadron. If no serious enemy threat developed east of Bluff Creek the Squadron was to advance to the west, cross Bluff Creek and operate offensively against the Brown right flank and rear.

One platoon of Troop B with light machine gun squad

attached was to prevent hostile crossing of a bridge over Bluff Creek west of RJ 257. This bridge, though it did not show on the maneuver map, had been located by 6th Cavalry patrols and was of vital importance because Bluff Creek, while fordable, was a comparatively formidable obstacle and the bridge in question would prove essential to lateral maneuver of Brown forces in this area.

The remainder of the 6th Cavalry was to remain in mobile reserve in its present location prepared to oppose any threats to the Blue flanks by mobile elements of the Brown force.

At about 3:10 AM, August 7th, shortly after hostilities officially began, large numbers of infantry appeared on the front of Troop A which was holding its sector with the troop (less one platoon) east of Tiger Creek while one reinforced platoon was disposed between Tiger Creek and Bluff Creek. After forcing some deployment of the advancing infantry and determining by reconnaissance that it was confronted with a greatly superior force Troop A withdrew by echelon to the previously reconnoitered delaying position in the vicinity of RJ 270-A, marked A on the accompanying sketch, leaving patrols to continue contact with the enemy. The delaying position was occupied and the hostile advance checked. Meanwhile patrols from Troop A carried on an intensive reconnaissance of the front and flanks and determined that at least one battalion of the 156th Infantry was advancing on the axis: RJ 270—RJ 270-A and was being followed by other infantry elements of undetermined strength. At about 5:10 AM the 2nd Squadron (less Troop F) reached the position of Troop A and the latter passed to control of the 2nd Squadron. Troop E immediately was placed in position on Troop A's left and the heavy machine guns committed to action. Fire superiority was gained and the enemy advance was definitely checked. Reconnaissance developed that some infantry, in column, was advancing from the south and Troop E (less one platoon) was sent around the east flank to attack this hostile force. Due to difficulties encountered in crossing swampy areas en route to the point from which the attack was to be launched the attack didn't get away and Troop E was recalled. The 2d Squadron continued to hold the delaying position until about 6:35 AM when it became apparent that infantry was infiltrating through the woods and threatening the flanks of the position. Patrols also reported that the bulk of an infantry battalion was advancing north on Highway 319



and had reached a point in the vicinity of RJ 269-B. At this time the CO 2d Squadron ordered occupation of a second delaying position marked "B" on the accompanying sketch. The second delaying position had limited and broken fields of fire and for that reason it was not intended to occupy it for any considerable length of time but rather to hold at this location until reconnaissance might develop more definitely the enemy strength and dispositions. Fire superiority was immediately gained when the second delaying position was occupied and the hostile advance checked. Patrols operating from Troop A on the right flank captured eight prisoners, five of whom were identified as belonging to Headquarters Company and three to Company B of the 156th Infantry. Patrols from Troop E brought in three prisoners identified as members of the 155th Infantry. At about 7:00 AM it became apparent that the second delaying position could no longer be held due to hostile advance in a heavily wooded

area on the left flank of the position. The squadron reserve consisting of one platoon of Troop A was directed to launch a counter-attack against the force threatening the left flank. This counter-attack was successful and checked temporarily the enemy threat. Meanwhile fire was received from both 37-mm. guns and Stokes Mortars. This fire coupled with information from patrols, indicated that the bulk of the 156th Infantry was opposing the squadron. Having accomplished the desired delay at this location the Squadron Commander ordered occupation of a third delaying position marked "C" on the accompanying sketch. This position was occupied and held until 7:58 AM.

To coordinate the narrative it is necessary at this point to trace the developments in the vicinity of the bridge over Bluff Creek west of RJ 257. The platoon of Troop B which had been ordered to this point arrived at the bridge about 4:00 AM and encountered no enemy. However hearing

heavy firing to the south of his position the platoon commander sent a patrol to determine the situation and to contact the flank elements of Troop A. A messenger was also sent to the CO 6th Cavalry to inform him of the situation as it was then known. Feeling that a serious threat was developing on the right and rear of the 2d Squadron the CO 6th Cavalry sent the remainder of Troop B to the vicinity of the bridge west of RJ 257. When Troop B arrived at the bridge the troop commander found that approximately two companies of infantry were generally astride Highway 319 south of RJ 257 while a force estimated as one battalion of infantry was advancing from the southwest toward RJ 257. Contact had been gained with the right flank of the platoon of Troop A which had been delaying to the north along Highway 319. This information was promptly reported to the Regimental Commander. The latter realizing that the situation on the front of Troop B was precarious and threatened very seriously the right and rear of the 2d Squadron, ordered the Squadron Commander to withdraw immediately to the vicinity of RJ 257 where Troop B would pass to his control and thereafter he would occupy a delaying position with his entire force just north of RJ 257 at a point marked "D" on the accompanying sketch. This was a strong position with excellent fields of fire and had been previously reconnoitered.

Upon receipt of the order at 7:58 AM the CO 2d Squadron ordered a withdrawal by echelon generally along the axis of the Loop Road leading to RJ 257. A patrol was sent to contact Troop B and deliver a message to the troop commander informing him of the orders received from the CO 6th Cavalry and directing him if forced to withdraw to occupy a position on the right of the new delaying position. As the 2d Squadron proceeded with its withdrawal by echelon from position "C" hostile observation planes became active in the area and the withdrawing units, to avoid detection made maximum use of covered routes just east of the Loop Road. As the covering detachment of the leading element in the withdrawal reached a point marked "E" on the accompanying sketch it encountered an enemy force estimated as a platoon which was apparently resting among some pine trees some 200 yards to the front. The rifle strength of the leading troop was greatly depleted at this time due to the large number of patrols that it had been necessary to send out to the flanks. Realizing that hasty action was necessary and that the element of surprise might be capitalized the CO 2d Squadron ordered a mounted attack by such personnel as was immediately available. This consisted of 3 lieutenants, 3 buglers, and 2 messengers. Quickly launched and vigorously executed the mounted pistol attack was driven home and 30% casualties assessed against the Brown unit. The withdrawal then continued and as leading elements approached a point marked "F" on the accompanying sketch another hostile infantry force of about one company was seen crossing the highway. A second mounted pistol attack was launched by a small force consisting of 3 officers, and 12 enlisted men of

Troop E. This attack coming as a complete surprise to the enemy was successful and 30% casualties assessed against the enemy. The withdrawal continued and at this time information was received from the Commanding Officer Troop B that the latter was heavily engaged with a much superior force and that he would require assistance to affect a withdrawal of his troop. Accordingly the CO 2d Squadron placed the bulk of his available automatic weapons in position covering the left of Troop B's position in the vicinity of RJ 257. Fire was immediately opened by these automatic weapons.

At this time patrols reported to the Squadron Commander that an enemy force estimated as one company was moving to the northeast in the vicinity of "G." Troop E (less detachments) was ordered to advance to the west and attack this newly reported hostile force. Supported by 2 light machine guns and 2 heavy machine guns, Troop E rapidly advanced and launched a dismounted attack. Fire superiority was promptly granted Troop E and this action, coupled with that of the remainder of the squadron, relieved the pressure on Troop B and placed it in a position to withdraw. However, before withdrawal could be effected the siren was sounded announcing the end of hostilities for the day. This was about 9:00 AM.

From facts gained through a check of hostile dispositions at the close of the action, coupled with data obtained from umpire and organization records, it may be stated in summary:

- (1) That on August 7th, an entire infantry brigade with artillery support attacked up the Bluff Creek corridor with the bulk of the brigade east of the creek.

- (2) That the attacking brigade was opposed, east of Bluff Creek, by first a reinforced troop, later a reinforced squadron, and finally by a reinforced squadron plus one troop.

- (3) That during the approximately six hours of hostilities the attack in question was advanced a total of approximately 3 miles.

For the sake of brevity it was necessary to omit much detail from the foregoing narrative. However a close study of the operations reveals certain features that are worthy of mention:

- (1) Approximately the first two hours of the action occurred during hours of darkness. Control was difficult but it was maintained through efficiency of patrols.

- (2) The delaying positions occupied, though the best available, afforded very limited fields of fire both to the front and flanks. For example in no case could machine guns be used at ranges as great as 1,000 yards. Wooded areas on the flanks not only prevented protection of these areas by automatic fire but afforded covered approaches for hostile attack. This, coupled with the great numerical superiority of the enemy prevented delaying positions being held for any considerable length of time.

- (3) Though limited fields of fire reduced the effectiveness of machine guns in sustained fire the action nevertheless clearly demonstrated the great value of these weap-

(Continued on page 551)

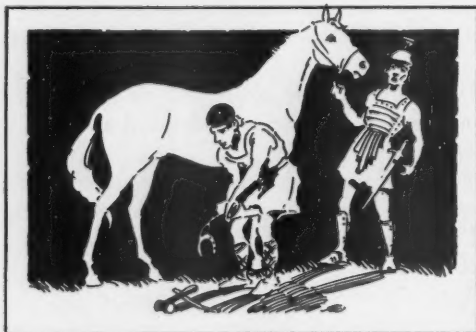
TRADITIONS OF THE CAVALRY

...AND HOW VARIOUS SAYINGS AND CUSTOMS ORIGINATED... by WINDAS



The LARIAT

Contrary to popular belief, the lasso was not originated by cowboys. It was first a primitive but efficient weapon of war, used by Attila's Hun cavalry to pull enemies from their horses.



OVERCOATS

The overcoat in its present form was originated in the cavalry. It became necessary when the long-skirted dress coat was abandoned and the military cape of the day became inadequate.



HORSE-SHOES

Horse-shoes were first used in the Roman cavalry (480 A.D.). Made of iron, they quickly demonstrated their superior wearing qualities over clumsy leather boots filled with straw, for which they were substituted.

EXPLOITS OF MODERN CAVALRY

From "Revue Militaire Generale" Oct. 1938.

On Feb. 21st., while troops of all arms were occupying the valley of the Turia, a cavalry force raided and captured the village of Castalvo, cutting off the retreat of Loyalists trying to escape to the south. This remarkable action largely contributed to the surrender of the Loyalists defending Teruel.





EDITOR'S SADDLE

"Crazy Business"

The eighth installment of Peter B. Kyne's observations of America at war appears in this issue. The CAVALRY JOURNAL is fortunate, indeed, to be able to carry the very interesting and vitally significant comments of this eminent man of letters. Having breathed the atmosphere of the American soldier from the time he himself was a stripling, his remarks bear the stamp of sincerity and intimate knowledge of the breed. No feature of the JOURNAL during the past year has been received with more interest and appreciation than has this story which is devoted to the buck private and the problems involved in the production of a combat unit. Certainly, no junior officer can read this remarkable story without considerable reflection on the management of young America in military uniform. Perhaps still more important is the keen analysis of what is essential to the making of combat troops and what are the measures and activities which miss this real objective. As General Hawkins says, there are certain fundamental features which go to make the soldier. It is wondered how many readers of this publication have plucked these essentials from the shrewd and analytical observations of Captain Peter B. Kyne.

Dues

It has been just one year since mention was made in this column of membership dues. At that time it was noted that approximately 35% of the Association membership were in arrears on payment of dues. This year that figure has been reduced to approximately 27% but still involves a financial figure of over \$2,000.00 which remains on the books as accounts receivable. The most significant feature of these figures is the attendant expense of postage and office routine involved in several repeated billings. In many cases an individual member is carried on a continuing membership basis when he really intended to discontinue his subscription upon its annual expiration. Except in those instances where subscription for one year is definitely designated the customary procedure has been to carry the individual under continued membership. Unless the editor's office is advised of discontinuance several bills are forwarded as well as several copies of the JOURNAL. It might be of interest to note that the actual cost of printing and distributing one copy of the JOURNAL (exclusive of office and clerical overhead) amounts to approximately 44c. As a single issue sells at 50c the margin of Association profit is slight. Accordingly, expenses would be materially

reduced if we could bring our membership accounts to a more liquid status, at the same time materially reducing additional expense of rebilling. Many subscribers have assisted by returning remittances with the yellow notices of expiration which accompany the last JOURNAL of their current dues. In this manner the routine of billing is cut down, and a considerable amount of money is saved in postage on the first formal statement usually sent out the month following expiration.

Membership

Recently all Commanding Officers of National Guard and Reserve cavalry regiments were contacted by letter presenting an analysis of memberships by component in the Cavalry Association. Response to these letters has been most generous and sympathetic, and the membership in the Association has benefited accordingly. With a more generous use of illustrative material such as maps and photographs the publication costs of the JOURNAL have risen in the same proportion. This added expense is being met with increasing circulation, and it is trusted that we can continue to incorporate the necessary illustrative material on an increasing basis. The following extracts from a letter indicate the very kind and cooperative spirit with which regimental commanders are meeting the request for an enlarged circulation:

"Thanks for yours of the 2nd inst., giving membership figures of the Cavalry Association.

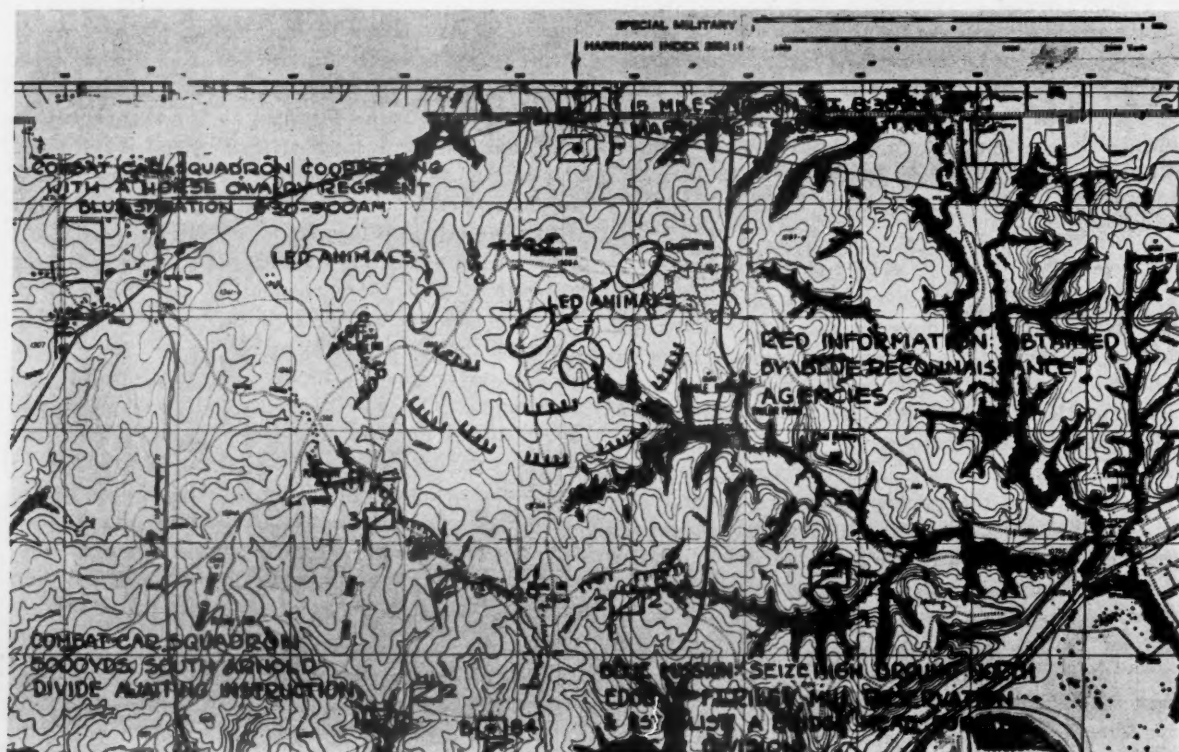
"You can be sure that we are doing all we can to boost the strength, and it is evident that more work along this line should be done with the Reserve Officers, for if the same percentage prevailed in the O. R., as is present in the National Guard, we would have about 3100 on the roster. A word or two from Regular Officers on duty with the Organized Reserves, at group schools, summer camps, etc., would be helpful in producing results, as has been the case in the past.

"There is no question but what the CAVALRY JOURNAL is the best in its field, full of valuable and interesting reading, and a number of the boys would rather have it than take correspondence courses. Every Cavalry Officer should receive it, especially Reserve Officers, as there is no better way to keep up with events and developments than by the aid of this publication. The writer gave a 'pep' talk along this line at our last meeting, and hopes it will produce some results."

NOTES *from the* CHIEF of CAVALRY

Chief of Cavalry's Question

To assist Cavalry cross-country mobility: Can reliance be placed on present wire cutters? If not, what means should be adopted to facilitate rapid passage of cavalry through wire fences or other wire obstacles?



What Would You Do?

SITUATION

Red-North—Blue-South

The Blue 2d Cavalry, reinforced by one battery of field artillery (horse), marched north with the mission of

seizing the high ground at the north edge of the Fort Riley Reservation to form a bridgehead for the remainder of the 1st Cavalry Division.

At 8:30 AM it has been stopped along the line: Caisson

Hill—Morris Hill—Redoubts—Hay Camp, where it is engaging a Red horse cavalry regiment with fire. The Red regiment holds the line as outlined on above map. A regiment of Red horse cavalry reinforced by horse artillery is moving south on the Riley—North Gate road and is 15 miles north of the reservation.

Colonel 2d Cavalry has just received a message stating that one combat car squadron, reinforced by one platoon

of armored cars, one platoon of Machine Gun Troop (Mecz) and one section of mortars will arrive at Junction City (three miles southeast of 2d Cavalry C.P.) at 9:00 AM, to be attached to the 2d Cavalry.

Colonel 2d Cavalry decided to attack and formulated his plan.

WHAT WOULD YOU DO?
(FOR SOLUTION, SEE PAGE 549)



The Cavalry Rifle and Pistol Teams

J. H. PHILLIPS, Captain, 9th Cavalry

It is time to start work for the 1939 team. What can be done at this time? Troop Commanders can organize troop teams and utilize team members as coaches for small bore work with the recruits and poorer shots. Such an approach to the marksmanship problem will help develop the whole organization.

Due to the dispersion of the personnel of our arm, we are forced to rely on a decentralized system of training. Whereas this system is conducive to excellent results for organization training, it does not meet all the requirements for team development. Something more must be done if we are to have successful rifle and pistol teams.

The development of troop teams, with healthy competition between troops will uncover new material, develop present prospects, and if conducted in conjunction with training of recruits who have joined since last target season, will be a great help to the Troop Commander when the next target season begins.

One of the greatest criticisms of the Cavalry Team is, that it takes the best coaches away from the organization during the target season. Here is a concrete suggestion as to a manner of overcoming, to a large extent, this ob-

jection. Use these highly trained men as coaches during the period they are not with the team. This is not a theoretical solution but one that has been used very successfully by some Troop Commanders.

The equipment of the troops could be improved by purchase of the following items: spotting telescopes, .22 caliber pistols, and micrometers for the service rifle. Many organizations have these articles of equipment and find them very helpful.

A movement is on foot to organize shooting competitions between regiments in the Cavalry, and any preparations in the form of development of material in the troops would certainly strengthen the prospects of the regiment.

Competition with civilian teams, such as schools and rifle clubs, should be encouraged, particularly where a shoulder to shoulder contest can be arranged.

The above suggestions, if carried out, will assure better Cavalry Teams and better trained organizations. This is an opportunity to combine the centralized system of training of the Cavalry Team with the decentralized training of the organization to the benefit of both.



Propaganda and The News

(Continued from page 512)

On the other hand, a modified form of the canard is very common in this country. That is the trial balloon. With that technique, a person, usually in public office, puts out a suggestion from which he can subsequently retreat if it is unfavorably received. The one thing that the newspapers dislike intensely is to have the trial balloon used and then have the originator subsequently deny that he made the first statement. Editors are usually on their guard in this respect and when they suspect the balloon they try to get the first feeler down in direct quotes. The first position and the subsequent modification of it may both be quite legitimate news from the newspapers' point of view and there need not be anything underhand about the use of this device.

The newspaper renders the best service to its readers when it indicates clearly that what is expressed is a personal opinion and indicates the person responsible for it. The reader can profit by watching out for such indications.

Implicit trust in everything printed is, of course, not even half a jump short of the booby hatch. On the other hand, the suspicion of ulterior motive behind every presentation of fact and opinion takes most of the fun out of reading. The better newspapers are trying to spot propaganda and keep it out of the news. The more intelligent readers can assist them by knowing propaganda when they see it, complaining about it when necessary, and shifting their morning paper when and if it is not corrected.

General Hawkins' Notes

Bringing Order Out of Confusion

More than ever before, the practice of bringing order out of confusion has become a prime requisite in the training of troops. Troops are drilled on the drill grounds and put through tactical exercises in which perfect order is maintained. Our excellent system of permanent squads and platoons insures good order under almost all circumstances in time of peace. In time of war this system is also excellent. In fact, good squad and platoon leadership is absolutely essential in camp, on the march, in carrying out reconnaissance and security measures, and in battle, or any other duty.

But on many occasions in campaign, troops are thrown at least into temporary disorder. If they are accustomed always to good order they may become easily demoralized by the loss of it. Nothing is more demoralizing to troops than the realization that they are in apparently helpless disorder. Therefore, they must, by training, be made to feel that they are not helpless when in disorder, but, on the contrary, that they know how to regain order no matter how much confusion seems to exist. This feeling is one of the most valuable attributes in a command. But it can be attained only by training.

When troops, mounted or dismounted, are deployed in depth for the attack, the rear waves of the attack are almost certain to close and become mingled with the leading waves when the actual shock against the enemy occurs. One of the reasons for deployment in depth is to use our numerical superiority at the point of attack without thickening our front lines so much that they become too vulnerable to machine gun and rifle fire. Therefore, if the enemy stands and fights, our rear waves must close upon and mingle with front waves in order to support them in the close fighting that follows the assault. When this occurs, a mixture of squads and platoons and even troops or companies is sure to follow. Sometimes even larger units become intermingled. Then, no man knows where his squad is or his platoon. When the fight, or that initial phase of it, is over we may expect a counter attack at any moment. Or, we may be repulsed, or have to move forward again to meet some new situation, or to pursue, or to consolidate our position. In any case, our new task cannot be commenced safely or efficiently until reorganization has taken place and order regained. If there is really no time for this, we have to do the best we can as we are. But at the slightest pause, or with even a few minutes of time, reorganization should begin.

Squad leaders begin calling for their men and platoon

leaders for their squads. As soon as four or five men of a squad are collected the squad leader must look for his platoon commander and conduct his squad to him for further orders. The absentees, if still alive and able, will thus have a squad to look for and will eventually find it. Those who cannot find their own squads will attach themselves to other squads in the forming. Platoons are reformed in the same manner. As soon as one squad reports to the platoon commander, even if that squad has assembled only four or five of its men, the nucleus of the platoon is formed and the platoon commander commences to lead it to its proper position or to report to the troop commander. The absent squads will thus have an established platoon to look for. But if the platoon cannot be found, the squad leader attaches his squad to some other platoon. However, if two or more squads belonging to the same platoon find themselves together and the platoon commander is missing the platoon sergeant or one of the squad leaders assumes command of the platoon and remains in command until the proper platoon commander rejoins or is permanently replaced. The platoon sergeant assists by gathering as many men as he can and directing them to their squads, and takes command in the absence of the platoon commander. Each squad must always be organized with a squad leader and a second leader. This second leader has certain duties prescribed in the drill and training regulations, but when a mixture of men and small units takes place and confusion and disorder prevail, he must assist in any way he can and much in the same way as has just been described for the platoon sergeant.

When the platoons have recovered their organization and order, they proceed to execute any immediate missions that seem necessary or are ordered by the troop commander, without waiting to even up or equalize the numerical strength of their several squads. Casualties or absentees may be greater in some squads than in others. But any readjustment should wait upon the immediate needs of the moment. Time can be found later for permanent reorganization.

When squads and platoons have been reformed, it is easy for larger units to regain order. Until the small units have been reformed it is impossible for larger units to regain order.

Confusion and disorder may occur in other ways. A unit may be surprised on the battlefield, on the march or in camp, and thrown into disorder. At night, some units may become confused by having some of their component

units take wrong roads or trails, and individual soldiers may lose their own commands. Violent storms at night or night attacks by the enemy upon a marching column may bring confusion. Severe shelling by artillery, or bombing attacks by airplanes, or a surprising rush by enemy tanks can sometimes be rendered comparatively harmless by an unrestrained rushing of the command into dispersion or shelter or rough ground, and some disorder may follow. But if the troops have been trained by deliberately assumed situations in which the intermingling and mixture has been made actual, and if the troops have been practiced in coming out of the deliberately made confusion and disorder by using some simple and practical principles, they will come to regard the disorder as something natural and to be expected and will set about calmly and confidently to restore the situation.

Such a command will have the feeling that no matter what the enemy or the elements do to them they cannot be routed or thrown into panic. And that feeling of confidence is the greatest morale builder a command can have.

When troops have been mixed up purposely, like the shuffling of a pack of cards, in order to practice the bringing of order out of confusion, or at other times when

simulating combat, there should be had also the practice of replacing lost leaders. Certain squad leaders, platoon commanders and troop commanders should be designated to fall out without saying a word to anybody as though they had become casualties. Then, further operations like resisting a counter attack, or moving forward to attack a second position, or deploying and moving to escape an artillery bombardment, or seeking shelter from observation by hostile airplanes, or anything else requiring immediate and quick action, should be required. In each unit, small and large, wherein a leader has fallen, some one should take command and proceed to restore order and lead the unit promptly to its new task.

These exercises require imagination, and all ranks should be instructed carefully about them before practicing them. Otherwise the men will not understand what it is all about. But even though it may seem simple and unnecessary, the very act of going through such exercises will prepare the men and officers to recognize disorder and its causes when it comes actually in the field and to regain order without the demoralization and confusion which often has been very serious in such situations.



What Would You Do?

A Solution

Colonel 2d Cavalry radioed, and also sent a staff officer with a section of scout cars, to meet the commanding officer of the combat-car squadron when he arrived at Junction City. The staff officer informed the combat-car squadron commander of Colonel 2d Cavalry's plan for the attack and acquainted him with the situation. The plan of attack contemplated an envelopment of the hostile right on Custer Hill and Randolph Hill by the combat-car squadron as promptly as possible. This attack to be supported by the battery of artillery and fire from the 2d Cavalry. One squadron of 2d Cavalry to be held in reserve and this squadron to take over Custer and Randolph Hill after their capture by the combat-car squadron.

The combat-car squadron moving west of Highway 77 to the area northeast of Estes Gate for the attack on their objective, followed closely by the platoon of machine guns (mechanized).

The mortars to place smoke on Custer Hill.

DISCUSSION

There are some very valuable lessons to be learned in the foregoing problem where horse and mechanized cavalry cooperate in an attack:

(1) Time will be an important consideration and situations will arise where the mechanized unit, coming from a distance, will not have time for the commander of that force to make a preliminary reconnaissance on the ground prior to an attack. A staff officer who is thoroughly acquainted with the commander's plan should meet the mechanized unit commander, transmit the order to him, and inform him of the situation in person.

(2) Small attachments of mortars and machine guns to the combat-car squadrons are extremely valuable, the latter especially to hold the ground gained by the combat-car attack until the arrival of the reserve from the horse cavalry.

(3) The horse cavalry units following the attack should know exactly what objectives are to be attacked by the combat-car squadron and in what order, so that they may move rapidly and organize those positions before the enemy can recover and resume resistance. This also allows the combat-car units to reorganize under the protection of the horse cavalry units and proceed on further missions or be ready for counterattack.

(4) When combat cars are assembling, care must be taken to prevent getting too closely grouped.



NOTES from the CAVALRY BOARD

Devices for Caliber .50 Training: These devices may be attached to either the Caliber .22 or Caliber .30 machine-guns for training of Caliber .50 gunners.

The devices are simple and practical. An aircraft Caliber .30 machine-gun backplate is the basis of the backplate assembly. This is modified only to the extent of substituting a trigger which has the same positioning and "feel" as the Caliber .50 trigger. The trigger as issued on the aircraft backplate is not suitable due to shape and positioning.

It is believed that this device has great possibilities in the training of Caliber .50 gunners, and a study is being made as to its adoption for training purposes.

Browning Machine Rifle, M-1922: Request is being made to the Chief of Cavalry with a view to having the Ordnance Department modify a Browning Machine-Rifle, M-1922, in the same manner as the Browning Automatic-Rifle has been modified for the Infantry.

It is believed that a machine-rifle so modified will be a more efficient weapon as regards stability, cooling, accuracy, and range than the Browning Automatic-Rifle. The weight to be carried will be reduced at least one-half and the weapon will be much easier to handle when hot than is the present light machine-gun.

The Cavalry Board is desirous of testing a machine-rifle so modified as a possible replacement for the present light machine-gun, M-1919A4, now in the light machine-gun platoons of the rifle troops.

Smith & Wesson .357 Mangum Revolver: The Cavalry Board tested this weapon at ranges from 15 yards indoors, with artificial lights to about 150 yards outdoors and it was found to be an extremely accurate weapon. However, its shock of recoil throws the firer's aim off the target and consequently there is considerable elapsed time between two successive accurately aimed shots.

There is no question but that the weapon has tremendous hitting power.

It was found that the volume of accurately aimed shots at usable ranges was far below that of the Thompson Sub-machine-gun; that the hitting power at those ranges, while undoubtedly greater than that of the Caliber .45 ammunition, was of no great moment as the Caliber .45 bullet's hitting power is sufficient to make a disabling wound.

In view of the fact that the adoption of a weapon of this caliber would not add materially to the fire power of cavalry and would add one more caliber of ammunition in the chain of ammunition supply, the Cavalry Board recom-

mended no further consideration be given this weapon as an article of issue to Cavalry.

Range, Portable, Gasoline or Wood: The test of this article has recently been completed. This range was found to be capable of operating successfully in the field under adverse weather conditions and is generally greatly superior to the standard army field range in that cooking operations can be carried on while the transporting vehicle is on the march, and it is easily loaded and unloaded. Varied menus can easily be prepared on this range. It is considerably heavier than is the standard army field range but occupies but little more space in the transporting vehicle and has so many obvious advantages that it was reported upon favorably by the Cavalry Board.

Protective Clothing for Motorcycle Operators: It has long been recognized that a need exists in Cavalry for better protective equipment and clothing for motorcyclists and personnel riding in combat vehicles in winter. This matter was studied during the visit of the 7th Cavalry Brigade to Fort Riley, Kansas. Certain types of helmets, gauntlets, goggles, and protective clothing, now standard for issue to the Air Corps, were examined and found to be much superior to similar items now available in Cavalry. Efforts are now being made to procure a number of these items for test in the 7th Cavalry Brigade and in certain horse regiments.

Mask, Face, Isinglass—for Motorcyclists: The 7th Cavalry Brigade developed this article for motorcycle and combat vehicle drivers. It appears to give excellent protection from wind and dust and may prove to be sufficiently useful to warrant adoption and issue for use in Cavalry. The Cavalry Board has recommended that a certain number of these masks be manufactured and issued to Cavalry personnel for test purposes.

Marmon-Herrington 4-Wheel Drive Truck: The light 4-wheel drive Marmon-Herrington (Ford) chassis is still under study by the Cavalry Board to determine its possibilities, if any, for use in Cavalry, particularly as a light reconnaissance vehicle, a weapon and/or ammunition carrier, or command post car. The several types of this vehicle available at Fort Riley, Kansas, during October, 1938, were given rather extensive mobility tests. Their performance from this standpoint was generally satisfactory and it was the opinion of all who witnessed the tests that the ½-ton chassis with super traction tires was about the most mobile all-wheeled vehicle in existence.

Bantam Chassis, ¼-ton: This vehicle has been under test by the Cavalry Board since March, 1938. It has been

used quite extensively in the 2d Cavalry as a replacement for the motorcycle with sidecar. It appears to lack the power, pick-up and general mobility required in a tactical vehicle.

Carrier for Thompson Submachine-Gun: The method of mounting a Thompson submachine-gun between the handle bars of a motorcycle appears to be unsatisfactory in that this mounting is inconvenient and dangerous to drivers. Also, the value of fire delivered when the motorcycle is moving is highly questionable. A method of carrying the gun in a leather scabbard affixed to the front of the frame of the vehicle is now being studied.

Audible Signal Devices: Several types of audible signal devices are being tested by the Cavalry Board to determine their suitability as traffic signals, to alert horse or mechanized units to attacks of enemy aircraft or mechanization, or as a means of communication between vehicles.

The types under test are all of commercial usage, such as: sirens, exhaust whistles, electric and compressed air horns. No decision has been made as yet as to the need for these devices, or the type which is most suitable.

Autogiro: An autogiro, with the necessary operating personnel, is now stationed at Fort Riley, Kansas. Over a period of about one year tests will be conducted by the Cavalry Board, 7th Cavalry Brigade, and the 1st Cavalry Division to determine the possible uses of the autogiro, if any, in Cavalry. The tests conducted will be, for the most part tactical in nature as the necessary technical performance data has been secured in tests conducted by the Air Corps. The autogiro will be used mostly for command, liaison, and contact work with Cavalry during field exercises and maneuvers. It is hoped that some additional uses, not now envisaged, will be discovered before the end of the test period.



Delaying Action in Mississippi

(Continued from page 543)

ons and the flexibility of their fire power. Due to the speed with which they moved from one position to another and went into and out of action their fire was available almost constantly. Furthermore their use permitted the delaying force to gain fire superiority at all critical points at the time necessary.

(4) The soundness of the principle that a large reserve is not necessary against infantry in a delaying action was clearly demonstrated. Through intensive patrolling and superior mobility the delaying force was always able to trace infantry movements and move to counter threats before they became serious.

(5) In general all delaying positions were occupied with troops abreast. Withdrawals were made by echelon with the bulk of automatic weapons in the first echelon.


(6) In heavily wooded terrain combat necessarily resolved itself into numerous engagements between very small bodies of troops. Here a superiority of numbers is of great value. However, though small cavalry units cannot hold, they are most effective for harassing a superior enemy and adding greatly to his difficulty of control.

(7) Communications were most satisfactory. They consisted of radio, mounted, dismounted and motor messengers. No important message failed to reach the proper destination in time and throughout the rapidly moving situation the regimental commander knew at all times

the situation on the front of the various units and was able, where necessary, to coordinate the operations. For example just after being informed that the 2d Squadron was withdrawing from the third delaying position information was received that an infantry force was marching northeast generally toward the axis of withdrawal of the 2d Squadron. This information was transmitted at once to the CO 2d Sq. and reached him about the same his security elements located the force in question. A successful mounted attack followed.

(8) Where it is promptly launched and surprise is present the mounted attack is still a most effective form of combat for comparatively small units. Boldness and energy pay big dividends in enemy casualties.

(9) Finally, the great value of knowing the terrain and of maintaining continuous and intensive reconnaissance was demonstrated. Troop A had reconnoitered the terrain to its rear as well as to its front. The 2nd Squadron, in moving to join Troop A had reconnoitered the terrain over which it advanced. As a consequence, when the delaying action ensued all units knew where they were going and how to get there. Similarly, patrols, though often forced to move by circuitous routes, always managed to reach their destination and return with the desired information in time for it to be of value. In heavily wooded terrain and during a rapidly moving action this is difficult.



BOOK REVIEWS

THE RAMPARTS WE WATCH. By George Fielding Eliot, formerly Major, Military Intelligence Reserve, U. S. A. Published by Reynal and Hitchcock. Price \$3.00.

Reviewed by Brigadier General H. S. Hawkins, U. S. A. Retired.

In reviewing this book, which contains many sound and some inspired ideas, one is tempted to write at greater length than the space allotted for a book review in a service journal would permit. It should suffice to say that every army and navy officer and every congressman should own and study this work.

While not agreeing in some of the smaller details, it is believed that in the main, army and navy officers will find it sound and exceedingly helpful in formulating a fixed policy for national defense.

The first six chapters and the ninth chapter present incontrovertible facts and sound logic which our government would do well to study and approve.

Both army and navy officers can get from this book a clear idea of the problems which confront not only their own particular branches of the national defense but that also of their sister services, and this, every professional officer should have.

While not venturing to discuss the details concerning the navy, we of the army can find in the work many ideas of great value. We should certainly approve of the proposal that we have a small regular army kept so near to war strength, and completely organized for war, that it could take the field in a very few days. There is not much to disagree with as to the figures presented for the organization of this army nor as to how the National Guard should back up and reinforce the regular army. One of the best ideas in the book is that the Regular Army mobile force should be kept highly trained and organized to move immediately to any threatened point, or to assist the navy, as a complete unit of highly trained troops, to be backed up later if necessary by the National Guard as they can be made ready. This is in direct opposition to the old idea that the regiments of the Regular Army would be required to furnish large quotas of trained officers, non-commissioned officers and specialists to leaven the new regiments of the National Army, thus ruining at once the efficiency of the regular regiments. Major Eliot points out that we do not need to do this. He shows that the garrisons of our overseas possessions, the harbor defenses, the anti-aircraft troop and the Air Corps will require in all about 104,000 regular troops. This figure in-

cludes 23,000 men for the Air Corps at home and several thousand more for overseas Air Corps units, with something like 2,300 airplanes of different types, which is considered all we could possibly use in the defense of the United States and its overseas possessions. By maintaining in the continental limits of the United States a mobile force of regular troops of about 135,000 men, to be expanded in a few days to about 206,000 men by recruiting from the trained men of the National Guard, we could put into the field at once a highly trained force of regular troops to meet any sudden and quick thrusts of an aggressive enemy. In this way our Regular Army could expect to fight as such, and not to experience the discouraging effects of the enforced dispersion of the regular units at the very eve of war in order to train new divisions which at best could not be gotten ready in less than sixty days.

Thus, with a standing Regular Army of 239,000 (135,000 plus 104,000) men backed up by eighteen divisions of the National Guard when ready and if needed, and with an adequate navy, we would be prepared for any aggressive attacks by any foreign powers. This figure of 239,000, which in wartime would be expanded quickly to (206,000 plus 104,000) 310,000 regular troops, is believed to be a little too small. The National Defense Act of 1920 provided a Regular Army of 280,000 men as a peacetime establishment. This would just about fit the bill. It would provide for about 15,000 more cavalry which is indispensable. Major Eliot's figures provide for four divisions of cavalry, two of horse cavalry and two of mechanized cavalry, total 20,000. But since mechanized cavalry should be combined in a Cavalry Corps with horse cavalry, the horse cavalry being greater numerically by about three to one, our horse cavalry in the standing army should be about 25,000 strong. This might constitute three divisions of horse cavalry of 8,000 or 9,000 men each to two divisions of mechanized cavalry. The National Guard should provide more horse cavalry divisions as they can be made ready, just as the Guard will furnish eighteen infantry divisions to help the nine divisions of the Regular Army if necessary. And there would be other necessities which would easily bring the Regular Army up to 280,000 men in peacetime.

To quote from Major Eliot's book: "What we need, as Washington wisely said, is not a large army but a good one. Today that means a highly trained, thoroughly armed, well officered army, equipped with all the thousand-and-one weapons and devices of complex modern war and ready to take the field on a few hours notice. It does

not mean an army which has to train thousands of recruits after war begins. Such an army may be ready too late."

Again, in referring to his idea that it is the Regular Army backed up by the National Guard, and not Reserve or National Army divisions, that we should look to for our national defense, he says, "Our whole military policy should be oriented toward maintaining an army invincible on our own shores and in our own overseas possessions, and we should completely forget about any organization, tentative or otherwise, seeking to create an army of millions which could only be needed for trans-oceanic adventures."

Thus, this book asserts convincingly that with a Regular Army increased only to that provided in the National Defense Act of 1920, and supported as he explains by the National Guard, with an adequate Navy, we have the most reasonable, the most economic, the most certain and the only dependable means of national defense.

FIGHTING FOOLS, by Brigadier General James E. Edmonds, NGUS. New York: D. Appleton-Century Company, 1938. 359 Pages. \$2.50.

"Let's be honest with ourselves," says the author as he starts out, and he then proceeds to do it. Those people who smugly consider our national career a pacific one, he blasts out of their complacency with the statement, "The truth is we've been truculent, boastful, touchy, land-grabbing people—peculiarly gifted with the talent for persuading ourselves that we are somehow entitled, as by Providence, to take anything in sight no matter to whom else it belonged, which we believed we could put to better advantage in the service of what we dubbed 'our type of civilization'; . . . We've always been right."

The author then proceeds to prove his case up to the hilt. Step by step he takes up our history and shows us up for the greedy land-grabbers that we were. True, he believes we have about what we need now and appear content. But in the reviewer's mind that is questionable. Let something appear that we might covet and the grasping arm will again reach out. The Panama episode happened only yesterday, it should be remembered.

For the military men the author has done a splendid service. They do not make the war—nor want it, for that matter. It is the nation as a whole that makes the war and then turns it over to the soldier to fight. The tale is not a pretty one. An insufficient army takes over a big task, supported by raw militia and urged on by political directors. Chaos exists, battles are lost, blunders are made, opportunities are missed, nothing is right. As the war progresses an army must be built. Eventually the army evolves and the war is brought to an end—generally a successful one. To the one who reads his history carefully this is an astounding fact.

The United States, in the author's opinion, neglects its army, and its navy, has always kept its military strength perilously low, and never prepares for the possibility of war, while at the same time it conducts its foreign affairs with a thinly veiled truculence very likely to lead to war.



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From the world of political affairs he shows how often we have nonchalantly, carelessly—have it how you will—walked into situations that rightfully should lead to war—but did not. We waged many wars but, somehow, blindly escaped as many more. He shows that the nation quite readily and even enthusiastically would follow a president who flatly challenged a great power, and do this without the whipping up of public opinion by any munitions makers. It is these Machiavellian munitions men that the intellectuals and liberals berate for pushing us into the World War, so silly they are.

Above all, the author has a clear picture of the American; how he is moved and how he thinks. As he says, "The Americans, whatever their varying antecedents, remained singularly opposed to being told what to do—and what not. They have not become, at heart, either gentle or long suffering." Certain people might keep that in mind.

Here is a book that is realistically written. It is written by a man who knows his subject and how to weave the military policy of our country and the country's general political policy into a complete fabric. And then picturing the world he shows how we are rightfully entitled to the name *Fighting Fools*. We can take a certain pride in the first part of the title but he proves that our record shows that we are more fully entitled to the latter portion. S. O.

NAPOLEON: SOLDIER AND EMPEROR. By Octave Aubry. Philadelphia: J. B. Lippincott Company, 1938. 454 pages; 25 illustrations; index. \$3.75.

To review a book on Napoleon is like reviewing a Shakespearean play; anything that can be said has been said before, a dozen times over. Nevertheless, Octave Aubry has drawn a singularly clear picture of events surrounding the First Empire; and there may be a deeper motive behind this publication than appears in the title. With military dictators running rampant over Europe, every bit of eighteenth-century intrigue can find its exact counterpart on the international stage of today. The props and scenery are the same: only the actors and their parts have changed.

Then as now, political boundaries disappeared over night: the strong preyed upon the weak and treaties were not worth the paper they were written on. Also, it was Napoleon who stated that God was on the side with the most guns. How little the world (or rather man) has changed in over a hundred years!

Perhaps Octave Aubry is right in producing a work which reminds us that wherever there exists an oppressed people, there also will spring up a leader under the guise of liberator. And once such a leader tastes power, he will proceed, in the natural course of events, to becoming a conqueror. Let us hope, since the British navy can no longer control a man like Napoleon, that there always will be similar characters to those in Aubry's book: namely, the villain Talleyrand to lead the conqueror astray, and the rogue Fouché to betray him. After all, a dictator can last only just so long.

E. D. C.



ORGANIZATION ACTIVITIES

The First Cavalry Division—Fort Bliss, Texas

BRIGADIER GENERAL KENYON A. JOYCE, *Commanding*

News item No. 1 is the change of the command of the 1st Cavalry Division. The change is effective November 24 of the present year, when Major General Ben Lear will be relieved by Brigadier General Kenyon A. Joyce. General Lear sails from San Francisco, California, on the 29th of November for Panama, Canal Zone, where he will be in command of the Pacific Sector. General Joyce comes to us from Fort Clark, Texas, where he was in command of the 1st Cavalry Brigade.

The 2nd Cavalry Brigade has a new commander, Brigadier General Robert C. Richardson, who comes to Fort Bliss from the command of the 5th Cavalry, Fort Clark, Texas. General Richardson succeeds Major General Robert Beck, who was transferred to the War Department General Staff, Washington, D. C.

From Frankfort Arsenal, Pennsylvania, Lt. Col. R. W. Daniels came to Fort Bliss, where he is now Post Ordinance Officer. He replaces Major William J. Henry, who goes to the Philippines.

Lt. Col. and Mrs. Walter F. Winton have arrived in Fort Bliss. Col. Winton is to be assigned to the 82nd Field Artillery here. Major Earl C. Flegel, Infantry, has taken charge of the R.O.T.C. activities in the El Paso City Schools. Major Flegel came here from Schofield Barracks, Hawaii.

Major Albion Smith is transferred from the 82nd Field Artillery, Fort Bliss, Texas, to the Polytechnic High School in Long Beach, California, where he is teaching R.O.T.C. studies.

From the graduated class of '38 of the West Point Military Academy, the 1st Cavalry Division gets five new officers: Lt. John C. F. Tillson III, Lt. Eugene J. Sweeney, Lt. Harry B. Wilson are assigned to the 8th Cavalry. Lt. John C. Damon and Lt. William T. Weissinger III are assigned to the 82nd Field Artillery.

You have heard and read much of the Third Army Maneuvers and will likely read much more about them, for the problems were executed in this area, as in the others, with keen satisfaction to the judges and observers. There may have been a few derogatory murmurs from the dust-eating men at the "line" but who ever heard of an army without a "growl" here and a "groan" there.

The 1st Cavalry Division Horse Show to be held October 10-15 is assured of success by the splendid preliminaries already staged by the 7th and 8th Cavalry. The public always turns out in encouraging numbers to share the thrills of good horsemanship at Fort Bliss.

The 1st Cavalry Division and the Southwest Polo Tournaments opened October 2. The teams taking part are: 7th Cavalry; 8th Cavalry; Special Troops; 82nd Field Artillery; El Valle; Freebooters; Juarez, Mexico; 5th Cavalry; Dallas, Texas; and New Mexico Military Institute.

Local business men, ranchers, and military personnel are taking effective strides toward making El Paso and Fort Bliss the polo center of the Southwest. Larger crowds are attending as the tournament gathers momentum. The polo articles appearing each week, written by Lt. Bruce Palmer, 8th Cavalry, are educating the public in polo for a much better appreciation of the game.

Mrs. C. W. Feagin of Fort Bliss won the medal in the Ruidoso Women's Golf Tournament by making a score of 46 for nine holes.

The Army Y.M.C.A. in El Paso, Texas, is doing its part to give the soldiers of Fort Bliss worthwhile recreation. Under the leadership of Mr. William E. Herr, the "Y" is conducting a dancing school for beginners, which meets once a week. Also, a Discussion Group is held each week, led by some business or professional man of El Paso or vicinity.

The 1st Cavalry Division Headquarters Troop and Detachment celebrated the 17th anniversary of its organization with a beer and dutch lunch party in the Old German Beer Hall in Juarez, Mexico, on the 13th of September.

The building boom now going on in Fort Bliss, to the tune of \$1,000,000.00, is something of which the military personnel and the civilian population of this section of the country may well be proud. Construction of two adobe garages in the 7th and 8th Cavalry Areas, twenty noncommissioned officers' homes, eight steel and brick stables, four stable guard houses, and a bachelor officers' quarters building are the outstanding projects now under way.

3d Cavalry (Less 1st Squadron)— Fort Myer, Virginia

COLONEL GEORGE S. PATTON, *Commanding*

The Regiment left Fort Myer on September 6, 1938, for its annual march prior to reporting at Fort George G. Meade, Md., in compliance with instructions of the Third Corps Area for the annual maneuvers. Accompanied by the Machine Gun Troop, 10th Cavalry, which has been trained and equipped as a Rifle Troop, the Third Cavalry marched westward, north of the Potomac River to Adamstown, Md., thence southward across the Potomac at Point of Rocks into Virginia. Halting for the night at

historic Corby Hall, it again turned north and recrossed the Potomac at Brunswick, Md., and on to Frederick, Md., where another night was spent. After several marches eastward, which included a night march and a forced march the regiment arrived at Fort Meade on September 12th.

The period between September 13th and 22nd was consumed by Regimental, Brigade and Corps maneuvers, most of which seemed to take place at night and in the rain. We added to our already large knowledge of Delaying Actions and spent some miserable and uncomfortable nights and days, but everything turned out all right and on Sept. 22nd the maneuvers were officially declared at an end. The entire regiment with the M.G. Troop, 10th Cavalry, remained at Ft. Meade to complete the Light Machine Gun and Combat Firing and marched back to Ft. Myer in one day on September 28th.

At the Inter-American Horse Show from October 19-22nd, *Sandy* ridden by Capt. Henri A. Luebbemann and *Clipped Wings*, ridden by Capt. John L. Hines, Jr., distinguished themselves by winning from the best of the Army Horse Show Team Horses as well as the top horses of Chile and Mexico. *Sandy* was declared champion jumper of the show with *Clipped Wings* in Reserve.

The Cavalry Leadership Test for Small Units was held in the Second Squadron this year on October 26-27th. The Board of Officers named by the Regimental Commander to conduct the test consisted of Major George H. Millholland, Capt. Lawrence G. Smith and Capt. T. J. H. Trappnell. A very comprehensive test in two phases was formulated and consisted of an Individual Phase, both mounted and dismounted and a Platoon Phase. On the afternoon of the individual phase, the platoons started the second part of the test which involved a march of approximately fifty miles interposed with various situations and included a bivouac for the night.

The relative scores of the two platoons were very close but after much computation of figures the board found that the Platoon of Troop "F" led by 1st Lt. Loren F. Cole was the winner.

In a ceremony which rivalled King Arthur's Court in the days of the Knights of the Round Table, Colonel J. M. Wainwright was made a Brigadier General on November 1, 1938.

The Colonel, escorted to the Reviewing Stand by the Scout Car Platoon, took Post, mounted, for the various phases of the ceremony which were to follow. The entire garrison was formed mounted on the Parade Ground.

The order appointing him a Brigadier General was read, after which the senior noncommissioned officers of the Cavalry and Artillery galloped forward and pinned on the stars as insignia of rank. A general's flag and an aide-de-camp in the person of 1st Lt. John Ramsey Pugh, 3rd Cavalry, were provided and Major George H. Millholland administered the Oath of Office. After having been completely made a general, the mounted troops passed in review before the new Brigadier at the walk, trot, and gallop. The entire ceremony was conceived by Lt. Colo-

nel John Millikin who also splendidly performed the duties of Master of Ceremonies.

General Wainwright will remain in command of the Post of Fort Myer while Colonel Millikin will temporarily become Regimental Commander pending the arrival of our new Colonel George S. Patton.

Colonel Patton is no stranger to the Third Cavalry. He has commanded with distinction the 2nd Squadron from 1920 to 1923 and again has served as Executive Officer of the Regiment from 1931 to 1935. He is familiar with the various and multitudinous details which involve Fort Myer and its many activities and will therefore prove to be a distinct asset to the Post.

The Regiment was reviewed on November 12th by the Chief of Staff, General Malin Craig, who was accompanied by Colonel Fulgencio Batista, Chief of the Constitutional Army of Cuba. Colonel Batista was much impressed with the appearance and performance of the various units as they passed in Review.

Orders have been received relieving Lt. Col. John Millikin as Executive Officer of the Regiment and detailing him with the First Corps Area General Staff. Capt. Lawrence G. Smith has been announced as "Leavenworth" material for next year.

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1st Squadron, 3d Cavalry— Fort Ethan Allen, Vermont

LIEUTENANT COLONEL THOMAS H. REES, JR.,
Commanding

The summer training season closed with the departure on September 10th of the Officers of the 61st Cavalry Division. The Squadron returned from camp to the Post and almost at once sent a detachment to Springfield, Mass., to take part in the Eastern States Exposition.

Hardly had the Exposition started when the disastrous hurricane that swept over New England struck Springfield. Camped in the Exposition grounds with only a dam to keep back the water which roared by twelve feet above horses and men, it was a time to be remembered. Finally forced to move by having all tents blown down and the camp under three feet of water, the troops marched to the Agawam Race Track. Fortunately no men nor animals were lost, but much equipment was damaged and destroyed.

On October 2nd a horse show team went to Montreal to take part in the annual show of the 17th Duke of York's Royal Canadian Hussars, which lasted until October 8th. The 1st Squadron entered two teams to compete in the various jumping events scheduled throughout the week. The Canadian cavalry had a composite team, and the 17th Hussars were represented by their crack riders.

The five evening and two afternoon performances were crowded with thrills for an enthusiastic audience. The Royal Canadian Dragoons gave an exhibition drill at every performance. The show was made particularly enjoyable by the courtesy and hospitality extended to us by Lt. Col.

Harwood Steele, M.C., commanding the 17th Hussars, and by the officers of that regiment, with which the 1st Squadron has been closely associated during the last few years.

Winning first and third place in the team events, the Squadron brought to the United States for the first time the Harry M. Snyder bowl, known as the International Military Teams Grand Aggregate Challenge Trophy.

Places in the show were won as follows:

Grand Aggregate Challenge Trophy (Teams of Three)	1st Place	<i>Hightime</i> —Col. Rees <i>Black Beauty</i> —Capt. Jadwin <i>Bernice</i> —Capt. Barton
	3rd Place	<i>Razor Back</i> —Maj. Constant <i>Blue Bell</i> —Lt. Sawyer <i>Hailstone</i> —Sgt. Wood
International Officers' Jumping, Pitfield Challenge Trophy	2nd Place	<i>Black Beauty</i> —Capt. Jadwin
Handy Performance	1st Place	<i>Black Beauty</i> —Capt. Jadwin
Officers' Chargers	3rd Place	<i>Hightime</i> —Col. Rees
District O.C. District No. 4 Challenge Trophy	1st Place	<i>Hightime</i> —Col. Rees
	2nd Place	<i>Black Beauty</i> —Capt. Jadwin
	3rd Place	<i>Bernice</i> —Capt. Barton
The Scurry (Time limit)	1st Place	<i>Black Beauty</i> —Capt. Jadwin
	2nd Place	<i>Hightime</i> —Col. Rees
	4th Place	<i>Blue Bell</i> —Lt. Sawyer
Sweepstakes	6th Place	<i>Black Beauty</i> —Capt. Jadwin

The test for small units was held the middle of October and fortunately the weather was good for the entire period. The test was given to include the individual phase for all lieutenants including the six Thomason Officers. Lt. F. F. Carr, Cav-Res., won the mounted part of the test, and Lt. F. W. Townsley, Cav-Res., the dismounted. Lt. R. E. McCabe, 3rd Cav., won the night ride. The final result, subject to the approval of the Chief of Cavalry, showed the platoon of Troop "B," commanded by Lt. E. W. Sawyer, to be in the lead. This platoon test was very beneficial to officers and men. It included a march of over sixty miles, halt for the night, progressive combat exercises and tactical situations. All phases were required to be

completed in less than thirty hours. The scout car section supplied the mechanized attack and by radio communication controlled an airplane attack on the platoon.

At the invitation of Colonel Philip L. Brown, 110th Cavalry, the Squadron sent a team to compete in the Boston Horse Show. In this show the horses jumped exceptionally well, and the team won every military event, not only team events but individual as well.

Places were won as follows:

Officers' Chargers	1st Place	<i>Hightime</i> —Lt. Col. Rees
Danforth Challenge	1st Place	<i>Black Beauty</i> —Capt. Jadwin
	4th Place	<i>Blue Boy</i> —Capt. Browne
Handy Hunters	3rd Place	<i>Razor Back</i> —Lt. Col. Constant
Open Jumping (2d Div.)	2nd Place	<i>Black Beauty</i> —Capt. Jadwin
Knock Down and Out	2nd Place	<i>Hightime</i> —Lt. Col. Rees
Scurry	1st Place	<i>Bernice</i> —Capt. Barton
	4th Place	<i>Hightime</i> —Lt. Col. Rees

Military Teams

1st Place in two events won by:	<i>Hightime</i> —Lt. Col. Rees <i>Black Beauty</i> —Capt. Jadwin <i>Bernice</i> —Capt. Barton
2nd Place in one team event and 3rd Place in the other won by:	<i>Razor Back</i> —Lt. Col. Constant <i>Blue Boy</i> —Capt. Browne <i>Hailstone</i> —Sgt. Wood

In the Pair Jumping, *Hightime*, ridden by Lt. Col. Rees, and *Bernice*, ridden by Capt. Barton, won the blue ribbons, and 3rd place was taken by *Razor Back* with Lt. Col. Constant up and *Hailstone* with Sgt. Wood up.

Remount training is progressing satisfactorily and twenty animals will be turned for duty shortly. The other twenty have just been released from quarantine and are starting to work under Lt. E. W. Sawyer.

4th Cavalry—Fort Meade, S. D.

COLONEL R. C. RODGERS, *Commanding*

Shortly after its return from the 3rd Army Maneuvers at Pole Mountain, Wyoming, the regiment enjoyed the



Camp of Detachment, 1st Squadron, 3d Cavalry, at Eastern States Exposition, Springfield, Massachusetts, the morning after the hurricane and flood of September, 1938.

presence of the Officers of the 324th Cavalry for their fourteen-day training period.

Following this period the regiment held its supplementary target season, and upon its completion began preparation for participation in the Ft. Robinson, Nebraska, Horse Show, as well as the annual Ft. Meade-Black Hills Horse Show, held in the John A. Barry Stadium.

A team of nine horses, five enlisted men and three officers, under the supervision of 1st Lt. W. W. Culp, participated in the Ft. Robinson Horse Show, October 8, 1938, placing in eight of the ten classes entered:

Interpost Officers' Team Jumping—1st

Chester—Lt. W. W. Culp

Custer—Lt. R. J. Quinn

Bison—Lt. T. E. Matlack

Model Hunters—1st

Brown Cat—Pvt. Mount—Lt. W. W. Culp

Road Hacks—2nd

Brown Cat—Pvt. Mount—Lt. W. W. Culp

Officers' Jumping—1st and 3rd

Ugly—Lt. R. J. Quinn

Chester—Lt. R. J. Quinn

Open Jumping—3rd

Big Boy—Lt. T. E. Matlack

Enlisted Hunters—3rd

Brown Cat—Pvt. Mount—Lt. Culp—ridden by Corp. McCracken

Reserve Jumper Champion

Custer—Lt. R. J. Quinn

Enlisted Men's Interpost Team Jumping—2nd

Dutch—Corp. Vander Ark

Bison—Corp. McCracken

Jimmy—Sgt. Frace

The Ft. Meade-Black Hills Horse Show, held in the John A. Barry Stadium October 22-23, was most successful in every respect. The weather was excellent and large crowds of civilians from nearby towns and ranches attended the show.

A team, under the supervision of Lt. J. G. Minniece of Ft. Robinson, represented the Remount Depot, winning many honors in ribbons, silver and money.

The John A. Barry Trophy, initiated last year and won at that time by Troop E, was again captured by the same Troop, Capt. L. B. Rapp, Commanding. Competition was keen throughout, and not until the last Enlisted Men's class was completed, did E Troop definitely win over its close contender, Troop B.

The success of the show was due to the untiring efforts of the Horse Show Committee, headed by Major H. G. Holt.

The Judges were: Lt. Col. H. E. Egan, V.C., Ft. Francis E. Warren, Major A. T. Lacey, Ft. Meade, Major C. B. Cox, Cheyenne, Wyoming, Captain Thomas Whitehead, Ft. Robinson, Nebraska, and Mr. A. B. Hinman of Rapid City, South Dakota.

In athletics, softball was inaugurated on the post the past summer, culminating in a tournament with Troop

A a close winner. Basketball and bowling are both in full swing with leagues in both sports occupying the time for the next few months.

Since the JOURNAL's last issue, the regiment has lost Lt. Col. and Mrs. E. O'Connor to New York City, where we trust they have made as many friends as they left behind them.

The garrison has had the pleasure of welcoming Lt. Col. and Mrs. J. B. Coulter coming to us from Washington, D. C. Lt. Col. Coulter has assumed his duties as post and regimental executive.

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6th Cavalry—Fort Oglethorpe, Georgia

COLONEL GEORGE DILLMAN, *Commanding*

With a very satisfactory target season completed, the Regiment for the past month, in addition to its normal routine of garrison schools, has devoted considerable energy and time to preparation for the annual Fort Oglethorpe Military Tournament and Horse Show. The latter extended over the eight-day period from October 30th to November 6th inclusive, and included drag hunts and polo games on October 30th, November 2nd and November 6th, the latter two polo games being between Fort Oglethorpe and Fort McPherson; a mounted Regimental Review on November 1st; and a Horse Show Thursday afternoon and evening, Friday afternoon, and Saturday afternoon and evening. The net proceeds of the Military Tournament are to be turned over to such charities as the Army Relief, the Chattanooga Community Chest, the Post Relief Fund and the Post Christmas Tree Fund. In the polo game on October 30th the Dragoons defeated the Hussars to win the Post Championship, as the two teams were tied as to the number of games won during the season. Fort Oglethorpe defeated Fort McPherson in each of the two games played by scores of 9-8 and 10-5. The newly-installed floodlights in the Horse Show Arena worked nicely, and the entire Horse Show was a great success and demonstrated conspicuously the great strides made by the officers and men of the Regiment during the past year in training and developing horses.

The 1938 season of the Fort Oglethorpe Hunt began with the opening meet on October 16th. Hounds met at the Bandstand with the Regimental Band playing hunting selections and the mounted buglers riding around the circle sounding the "Hunt Call." Fifty-four rode in the field.

The hunt staff for the season is: Master, Major Kloefer; Huntsman, The Master; Field Master, Lieutenant Colonel Fiske; Honorary Whips, Captain Withers, Lieutenant Prince, Captain Murtaugh; Kennel Huntsmen, Privates Linder and Lee.

The kennels have undergone a complete rejuvenation inside and out and new runways covering about five acres have been added. We have 14½ couples of entered hounds in addition to 14 puppies about five months old.

Through the efforts of the hunt staff a section of farm-

ing country west of the park reaching almost to Lookout Mountain has been opened up and will be fully paneled by the latter part of November. The area is at least as large as Chickamauga Park, our present territory. There are foxes in this new country and later in the season we anticipate some live hunts after all fields are paneled. The farmers have been 100% good sports in giving us permission to hunt over their land, and we are looking forward to a grand season. The long hoped for glad news was received today that our hunt, the oldest hunt in the army, has been recognized by the Masters of Foxhounds Association of America as being up to the high standard demanded by that body.

Captain Arthur N. Willis departed on October 27th for duty as Professor of Military Science and Tactics, Shreveport High Schools, Shreveport, Louisiana.

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7th Cavalry—Fort Bliss, Texas

COLONEL WILLIAM W. WEST, *Commanding*

On October 10, 1938, the 7th Cavalry started its annual inter-troop bowling league. The first round of the competition has been completed with Headquarters Troop leading. The enthusiasm for this sport has more than justified the construction of the new alleys at the Army "Y."

The inter-troop basketball league was started on November 2d. Many of the former stars of the regiment have left, but it has been most gratifying to find that there is a wealth of material in the new men who have just joined the regiment. At the present time Headquarters Troop and Machine Gun Troop show the strongest teams.

On December 14, 15 and 16 there will be a boxing tournament for the Post. The 7th Cavalry has a squad of seventeen men covering all weights in training for this tournament under the direction of Corporal Peter Marsel. The fighters are young, enthusiastic, of varied experience, and it is expected that they will ably represent the regiment in the coming tournament.

The 7th Cavalry repeated its performance of last year by winning the Southwestern International Open Polo Tournament. The final game was played with the 8th Cavalry, the score being 7-6. Teams which participated were, Mexico City, Dallas, Juarez, New Mexico Military Academy, El Valle of El Paso, 7th Cavalry, 8th Cavalry, 5th Cavalry, 82d F.A., Free Booters, and Special Troops.

Lieutenant Wilson was the only member of last year's 7th Cavalry Team who was available this year. The team this year consisted of Lieutenant Boyle, Captain Bixel, Lieutenant Wilson, and Major Haydon.

Previous to the Southwestern Open, the 7th Cavalry Team won the First Cavalry Division Tournament, defeating Special Troops in the final game.

At present there is a Fort Bliss Post Team which is practicing and getting into shape for a contemplated trip to Mexico City. The 7th Cavalry is represented on this team by Lieutenant Wilson.

On Friday, November 4th, the regiment held a dinner dance at the Hotel Paso del Norte. Covers were laid for sixty people and music was furnished by the orchestra of the 7th Cavalry Band for a very enjoyable party.

The First Cavalry Division Horse Show, which was held from October 10th to 15th, both dates inclusive, at Fort Bliss, furnished many exciting moments for contestants and spectators alike. There were teams entered representing all cavalry regiments of the Division, the 82d Field Artillery, and Special Troops. Competition in all classes was exceptionally keen and in the opinion of many, who were in a position to know, it was the best Division Show in many years.

The 7th Cavalry was represented in all but a very few classes and for the first four days of the show, ran neck and neck with its friendly rival, the 8th Cavalry. In the end however, we were nosed into a good second place.

The Show was characterized by the general excellence of the performance of competitors. Riding was good throughout, especially that of the enlisted men, many of whom were competing with little or no previous experience.

One of the highlights of the Show was the performance of 1st Sergeant Witaski, Troop "B," 7th Cavalry, on his gelding *Rising Star*, in the Enlisted Men's Open Jumping Class. Over a particularly difficult course, this gallant pair jumped off three times to finally win the blue with the jumps set at 5' 3".

1st Sergeant Shrout's win in the Enlisted Men's Schooling Class on his *Cloudy*, was outstanding as was Lieutenant Murdoch's excellent ride for the blue on *Little Pal*, over a difficult 4' 6" course in the Officers' Disobedience and Out.

Many observers thought the Inter-Regimental team Jumping competition was the thrill of the Show. Over a tough 4' 6" course of fifteen jumps, the 7th Cavalry placed its team second with eleven faults to the team from the 12th Cavalry, which went around with a four-fault total.

There is in training at present, at Fort Bliss, a group of horses and riders from whom a Division Horse Show Team will be picked, which may be sent to Mexico City in December to compete in a Show there. Five of our regimental jumpers and two of our officers are working with this group. Present signs indicate that a team can be gotten together which will give a good account of itself.

Gains since last notes:

Captain Laurence K. Ladue from Governors Island and assigned to command Machine Gun Troop.

Captain Loren D. Pegg from detail with Signal Corps at Fort Monmouth, N. J., to command of Headquarters Troop. Captain Walter E. Finnegan from Fort Riley and assigned as assistant S-2 and S-3 and officer in charge of recruits. 2d Lt. Walter S. Gray, from United States Military Academy and assigned to Troop "F." 2d Lt. Jack L. Grubbs, from United States Military Academy and assigned to Troop "E."

8th Cavalry—Fort Bliss, Texas

COLONEL INNIS P. SWIFT, *Commanding*

During the month of September preparations were made for the tactical training year.

The supplemental rifle season was completed during the month of September at the Fort Bliss Target Range with excellent results.

Two polo tournaments were held during the 1st Cavalry Division Horse Show period, with teams from Dallas, Texas; Roswell, New Mexico; Mexico City; 5th Cavalry, Fort Clark; and Jaurez, Mexico taking part, in addition to the teams from the Post consisting of the 7th Cavalry, 8th Cavalry, 82d Field Artillery and Special Troops.

The 1st Cavalry Division Tournament was won by the 7th Cavalry, defeating Special Troops 5-4.

The Southwestern International Tournament was also won by the 7th Cavalry defeating the 8th Cavalry 7-6, in a hotly contested and well played game. Much keen competition was seen in this tournament from the out of town teams.

The 1st Cavalry Division Horse Show was held during the period October 10-15th.

In addition to entries from Fort Bliss, entries from the 5th Cavalry at Fort Clark, 12th Cavalry, Fort Brown, and Civilian entries from El Paso participated.

The 8th Cavalry took a commanding lead with 96 points, 22 points ahead of its nearest competitor. Out of 32 classes the regiment took 5 first places, 12 second, 12 third and 11 fourth ribbons.

FIRST PLACES

Sgt. Sanders, riding *Naughty Boy*—Championship Jumper.

Lt. Cherry, riding *Naughty Boy*—Officers' Chargers.

Teams of Jumpers, *Naughty Boy* ridden by Sgt. Sanders; *Reveille*, ridden by Pvt. Keeton; *Air Mail*, ridden by Sgt. Carnes.

Fault or Disobedience and Out, Cpl. Rayburn riding *Sotol*.

Best Playing Polo Mount, *Mint Julep*, ridden by Capt. Valentine.

Novice Polo Mounts, *Mint Julep*, ridden by Capt. Valentine.

1st Lt. Henry T. Cherry, Jr., with the high individual score for officers below field grade won a thoroughbred colt offered by Colonel Saunders, of the New Mexico Military Institute of Roswell, New Mexico.

A scout car platoon of Headquarters Troop won first place as the best turned out section of the Post.

The regiment participated in a dismounted ceremony and escort on Monday, October 31, in honor of Major General Ben Lear, who departed for his new command, the Panama Canal Department.

General Lear had been in command of the 1st Cavalry Division since June, 1936, and his departure was deeply regretted by the entire Post.

Lt. Colonel J. P. Aleshire has just returned from Fort

Riley where he witnessed the combined maneuvers of the 7th Cavalry Brigade.

Captain A. J. Hart joined the regiment on October 31st, and is taking up his new duties as Regimental Supply Officer.

The regiment regrets the loss of Captain G. C. Clausen, who has been ordered to the 9th Cavalry at Fort Riley, Kansas.

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9th Cavalry—Fort Riley, Kansas

LIEUTENANT COLONEL TERRY DE LA M. ALLEN,
Commanding

The Regiment regretfully bade farewell to Lieutenant Colonel and Mrs. Joseph M. Tully on September 12th. The Regiment was reviewed by Colonel Tully who relinquished the duties of Executive Officer to Major Thomas F. Limbocker.

Orders have been received affecting changes in personnel, since the last issue of the CAVALRY JOURNAL as follows:

Colonel George S. Patton, Jr., was relieved and assigned to duty with First Cavalry Division. Lieutenant Colonel Terry de la M. Allen, assumed command.

Captain C. Stanton Babcock, was relieved from duty and ordered to Tokyo, Japan, as a Language Student.

Major George E. Huthsteiner was relieved and ordered to Riga, Latvia, as Military Attaché.

Major Harold L. Eastwood, joined and was assigned to the 2nd Squadron.

Lieutenant B. S. Cairns, is on duty with Department of Horsemastership as Instructor.

Captain Morris H. Marcus, joined and assigned duties of Assistant Adjutant and Farm Officer in addition to duties with Communications Platoon.

The football team under the superb coaching of Lieutenant John W. Darrah, Jr., Lieutenant Karl T. Gould and Staff Sergeant Raymond Curtis, have scored two victories thus far; defeating Joplin, Missouri, 52-0 and Topeka, Kansas, 21-7.

Noncommissioned officers attending The Cavalry School are Corporals Joseph A. Burney, Alonza E. Shearer, and Acting Corporals Calvin Johnson and John E. Holmes.

The Second Squadron Softball Team won the Lower Post Championship.

The Band returned October 8th after a four-day sojourn at Pawnee City, Nebr.

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11th Cavalry—Presidio of Monterey, California

COLONEL HOMER M. GRONINGER, *Commanding*

Vice Admiral and Lady C. Sidney Meyrick while visiting the Peninsula the week-end of September 10th took advantage of the opportunity afforded to inspect informally the Presidio of Monterey. Admiral Meyrick, the British Naval Commander-in-Chief, America and West Indies Station, was received on the post with a salute

fired by the 2nd Battalion, 76th Field Artillery. An escort, consisting of Troop A of the Regiment, conducted the visitors to Colonel Groninger's quarters where the escort was inspected. Admiral Meyrick expressed himself as highly pleased with the escort and other arrangements made and asked particularly for a photograph of the escort. An enlarged photograph has since been forwarded to Admiral Meyrick who replied that it was being framed to hang in his cabin as a reminder of his pleasant visit to the Presidio of Monterey.

Lieutenant General and Mrs. Bullard, accompanied by Brigadier General and Mrs. Alva J. Niles, called on Colonel and Mrs. Groninger, en route to the American Legion Convention held in Los Angeles, during the week of September 26th. Colonel Groninger was stationed at the Presidio with General Bullard in 1913.

The entire garrison staged a mounted review on the Del Monte Polo Field on September 24th as a special attraction for the Monterey County Fair. Brigadier General Edwin C. Stackpole, Commanding General of the 52d Cavalry Brigade of the Pennsylvania National Guard, accompanied by the President of the Monterey County Fair Association, received the review jointly while distinguished guests, including the Governor of the State of California, the U. S. Congressman from this district and many others, were seated in the reviewing stand. Both General Stackpole and the President of the Fair Association are holders of the Distinguished Service Cross. General Stackpole commands the Cavalry Brigade to which the Post Commander, Colonel Groninger, was assigned as Senior Instructor just prior to his assuming command at this station.

Word has been received, at the Post, that a new WPA project for rehabilitation and improvement of the Camp Ord Military Reservation has been approved. Work will commence on the new project on or about January 1. The project embraces the installation of a new fifty-four target known distance range with echeloned butts, improved messing and bathing facilities at the Camp Ord Training Center, concrete tent floors throughout the camp, extensive clearing of brush for maneuver areas, improvement of artillery ranges and observation posts, installation of a water borne waste disposal system and other improvements of a general nature.

The Corps Area Commander Major General Albert J. Bowley visited the garrison on October 28 and reviewed the troops at a mounted review on Saturday morning. General Bowley expressed himself as being favorably impressed with the ceremony.

The annual target season has now been completed and the Regiment is again consolidated at the Presidio. An intensive training period was launched on November 1 simultaneously with the opening of the post and troop schools.

The post touch-football league consisting of nine teams shares the recreational stage with the boxing tournament just launched. The touch-football league has played forty-six games with the league champions still undeter-

mined while the boxing tournament opened the first week in November. Upon completion of the tournament post champions will have been determined by elimination bouts and belts awarded to the winners of the various classes.

The wives of officers of the garrison have organized a Presidio Women's Club for the purpose of providing entertainment and recreation for members of the garrison. Ten committees have been appointed whose activities cover a wide field.

Changes in personnel since the last issue of the CAV-ALRY JOURNAL are as follows:

Major Otis L. Porter joined the Regiment on November 1, 1938, from Organized Reserve duty in Altoona, Pennsylvania.

2nd Lieutenants Thackeray and Walson joined the Regiment during October after graduation leave from the U. S. Military Academy.

Major Alden H. Seabury has received orders relieving him from duty with the Regiment and assigning him to Recruiting duty at Peoria, Illinois, effective January 1, 1939.

2nd Squadron, 12th Cavalry Fort Ringgold, Texas

LIEUTENANT COLONEL F. C. V. CROWLEY, *Commanding*

After return from Third Army Maneuvers the troops of the 2d Squadron began preliminary individual and collective training. During this period Troop E, Captain John L. Hitchings, and Troop F, Captain Frederick W. Drury, each conducted a motor movement to Port Isabel. Splendid facilities for swimming, fishing and boating were available at that gulf port and all hands enjoyed the visit to the limit.

Major McFarland Cockrill reported for duty September 28th.

On September 29th and 30th Colonel William F. Robinson, Inspector General's Department, made his annual inspection. Troops were commended for appearance, efficiency and esprit.

Captain John L. Hitchings and Lieutenant Edgar J. Treacy, Jr., with nine enlisted men and ten horses from the 2d Squadron participated in the First Cavalry Division Horse Show held at Fort Bliss, Texas, during the period October 10th to 17th. Lieutenant Treacy won first place in both green Jumper and Novice Jumper Class, Captain John L. Hitching, 12th Cavalry, placing fourth in the latter. The 12th Cavalry Team, consisting of members from both Fort Brown and Fort Ringgold, won first place in the inter-regimental team jumping class. This year for the first time, the Fort Ringgold and Fort Brown horse-show stables were consolidated early and trained as a co-ordinated team under direction of Major Harry A. Buckley at Fort Brown. The Blues acquired at the 1st Cavalry Division Horseshow demonstrated the wisdom of this policy.

An air-ground liaison exercise was conducted November 8-9 with 22d Observation Squadron at Brooks Field furn-

ishing the observation planes for this training. The exercise was a field maneuver, a Reconnaissance Detachment operating within a zone assigned to a Counterreconnaissance Detachment. Communication and liaison worked smoothly throughout, demonstrating the valuable assistance eyes in the air can be to ground troops.

The annual practice march of one week's duration was conducted during the period November 14-20 by the 2d Squadron with the Pack Train. First Platoon, Troop E, 17th QM Squadron, attached. The march, which was confined to Starr County on account of tick quarantine areas, was conducted with an assumed tactical situation continuous for the entire period. Various phases involved exercises in advance, flank and rear guards, reconnaissance meeting engagements and outposts. The final phase required a forced march extending well into the night. On the second day one platoon of Troop A, 1st Armored Car Squadron was available for employment as enemy reconnaissance vehicles. This troop, also on a practice march, under command of Captain C. W. Feagin, was en route to Port Isabel from Fort Bliss.

One of the most useful and interesting attractions recently added at Fort Ringgold is the park overlooking the Rio Grande and Mexico from the southern heights of the reservation. Major Joe C. Rogers (Cavalry), Q.M.C. first opened the park with its tropical palms, papayas, and banana plants as a picnic grounds for Quartermaster barbecues. Last spring a large duck pond was added and six wild mallards stopped permanently. Since then seven more have been added. A raccoon and a grey squirrel were donated next to be followed by gifts of two wildcats and a pair of white tail deer which were donated by Headquarters, Eighth Corps Area from its splendid Quadrangle Park at Fort Sam Houston. The latest acquisition is a trio of peafowls purchased by donations of the Quartermaster Detachment. While the number of animals was rapidly growing Major Rogers inaugurated an extensive program of planting all varieties of rare and beautiful plants. The park is a well known beauty spot and attracts visitors from many valley towns.

13th Cavalry—Fort Knox, Kentucky

COLONEL CHARLES L. SCOTT, *Commanding*

Since the last notes, the 13th Cavalry has marched to Fort Riley, Kansas, and return, participating in the maneuvers at the Cavalry School. During this period, as a part of the Seventh Cavalry Brigade, the regiment marched a distance of over two thousand miles and returned to Fort Knox with every vehicle running under its own power.

No attempt is made here to describe the various exercises, tests, and problems worked out at Fort Riley, or the methods of conducting large mechanized forces through dense population centers such as St. Louis and Kansas City, as these activities will be fully discussed in other articles. On the return trip through St. Louis in daylight,

for example, the crowd viewing the march lined both sides of the route of march for forty miles and was estimated at approximately 250,000.

It was an interesting and instructive period throughout, but the regiment is glad to be back home again.

Losses since last notes: None.

Gains since last notes: 1st Lieut. Norman K. Markle and 2nd Lieut. Roberts S. Demitz.

26th Cavalry (P. S.)—Fort Stotsenburg, P. I.

COLONEL CLARENCE A. DOUGHERTY, *Commanding*

During August the Regiment continued garrison training which certainly was more intensive, and possibly more extensive, than in previous years. Numerous inspections and mounted reviews were held throughout the period. Sketching, chemical warfare, clerks, ordnance, motors, communications and officers schools were completed in August.

The regiment started the field training period in September and has been fully occupied with marches, field exercises and combat firing problems.

The first of a series of monthly Regimental Horse Shows was held on September 17th. The outstanding feature of the show was the fact that the general performance of the horses received as remounts a year ago was better than that of the older more experienced horses.

A recent reallocation of animals for the regiment, will, when replacement is made, permit the substitution of horses for mules for combat and administrative packs. When substitution is complete there will be no mules assigned to the regiment except in the pack train.

The most recent addition to the regiment is Karina Maria, a daughter born to Lieut. and Mrs. C. A. Lichiré early in August.

Captain Juan S. Moran, 26th Cavalry (PS), returned to duty with the regiment September 19th after several years absence on duty with the Philippine Army.

1st Lieut. G. C. Cowan is leaving on the October boat for duty with the 7th Cavalry Brigade, Fort Knox, Kentucky.

Troop "B" won the Regimental Basketball championship again this year. A Regimental team under Lieut. J. J. La Ppage is practicing in preparation for play in the Department League.

103rd Cavalry—Tyrone, Pennsylvania

COLONEL BENJAMIN C. JONES, *Commanding*

It is a pleasure to note the promotion of Major Kramer Thomas, regular army instructor assigned to this regiment and stationed at Philadelphia, to the grade of Lieutenant Colonel.

Troop B, Philadelphia, held its first Organization Day ceremonies on September 30th. Over five hundred friends of the troop gathered at the armory to witness the affair. The program included drill formations, jumping, Roman

riding, and some other humorous events. The noncommissioned officers of the troop had charge of the program. The affair was concluded with a dance and luncheon. So successful was the Organization Day, that the troop plans to hold a similar function each year on September 30th.

Regimental pathfinders were on the loose recently. On October 8th Sergeants Emhart and Shatschneider and Private Faulkner of Troop A, Philadelphia, set out on a ten-day horseback trip to the Military Reservation at Indiantown Gap and return. They followed the ridge tops, along the old Horseshoe Trail. They found their trip both interesting and instructive and concluded it on scheduled time with themselves and their mounts in splendid shape.

Small arms qualifications for the year have been completed. There were a good many difficulties encountered in the qualification of our personnel this year, principally by reason of the present strict requirements as to adequacy and safety of range facilities. But all units did well and the record for the year is quite good.

Everyone in the regiment has fingers crossed in the hope that the new armory facilities planned by the General State Authority will actually be authorized and provided. They include a complete armory for Troop I at DuBois, with administration building, riding hall and stables; riding hall and blacksmith shop for Machine Gun Troop at Bellefonte; riding hall for Troop F at Lock Haven; and garage and corral for the units at Philadelphia. Completion of this construction will give all units of the regiment quarters that will be adequate for many years to come.

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106th Cavalry—(Illinois Component)

MAJOR RALPH G. GHER, *Commanding*

The Illinois component of the 106th Cavalry, consisting of Regimental Headquarters, Headquarters Troop, Band, Machine Gun Troop and 2nd Squadron, performed its annual tour of field duty at Camp Grant, Rockford, Illinois, and was attached to the 33rd Division. For the first time in a number of years, the entire 33rd Division was together for the annual tour of duty. Ordinarily, the field artillery brigade and the antiaircraft regiment train elsewhere, but with the artillery units with the division this year, the 106th was able to vary its usual program by participating in problems with all arms.

Under the instruction of the regular army instructor, Major Erskine A. Franklin, and the regular army inspector, Major Herbert Scanlon, the regiment was able to break camp with the knowledge of having accomplished a very satisfactory training period.

Upon its return from Camp Grant, the regiment went into its autumn range firing, and succeeded in qualifying the majority of its personnel in rifle, pistol, heavy machine guns and light machine guns. Troop F and Machine Gun Troop fired the mounted pistol course, and Machine Gun Troop has the distinction of qualifying its entire personnel in all arms.

The regular army instructor, Major Erskine A. Franklin, took a sixty-day leave upon his return from the annual field training, and spent his leave in Europe, visiting the Scandinavian countries, Esthonia, Lithuania, Latvia, Finland, Poland, and Germany. Being in Germany during the recent war scare enabled Major Franklin to relate some very interesting experiences.

Extension courses were started upon Major Franklin's return, and will continue throughout the winter. All officers are required to complete sixty-two hours of extension work during the season.

Major Gher, who commands the regiment, during the absence of Lieutenant Colonel Kenneth Buchanan, who is absent on a four-year detail with the War Department, General Staff, attended the National Guard convention in San Francisco.

Machine Gun Troop, commanded by Captain Mark Plaisted, and Troop F, commanded by Captain M. G. Peter, recently received an allotment of twenty-one new horses from Fort Robinson, Nebraska. The remounts are young and in good condition, and a remount training program is now in effect, under the supervision of Major Franklin, and Lieutenant Joseph M. McCarthy, Officer in Charge of Stables. Machine Gun Troop and Troop F, which are located in Springfield, now have eighty-one pooled animals, consisting of Federal, federally accepted, state owned, organization owned and private mounts. Lieutenant McCarthy, assisted by Stable Sergeant Taintor Brown, is responsible for the administration of stables and care and training of animals, and the results are quite noticeable.

Lieutenant William F. Hewitt, Adjutant 2nd Squadron, was the only officer of the 106th Cavalry to participate in the recent 100-mile ride conducted by prominent horsemen of Chicago. Lieutenant Hewitt and Private Peterson of Troop E, the only entries from the 106th, completed the ride with horses in excellent condition.

Troop E, commanded by Captain Roy D. Keehn, Jr., and Band, commanded by Lieutenant William F. Hewitt, also known as the "Chicago Black Horse Troop and Band" recently acquired new dress uniforms for escort duties. These units have the unique distinction of having escorted more dignitaries than any unit of the army outside of Washington, D. C.

Headquarters Troop, Urbana, Illinois, commanded by Captain Max Flewelling, will shortly occupy its magnificent new armory in Urbana. This building is the last word in armory construction, being completely equipped for accommodating horses and motor vehicles of the troop. The troop for the first time, used its new scout cars in the maneuvers at Camp Grant.

The Medical Detachment, commanded by Major Clyde D. Gulick will also occupy the new armory at Urbana.

The Supply Officer of the regiment, Captain Charles F. Sleeper, is somewhat handicapped by being located at a distance from any unit of the regiment. His home is in Evanston, but the functioning of S-4 and his enlisted per-

sonnel of Headquarters Troop in camp testified to the deep study and thoughtful preparation of the Supply Officer in completing all details of this most important staff duty.

The regimental Adjutant, Captain William A. Crookston of Springfield, was relieved of a large number of details by the appointment of a personnel adjutant, Lieutenant Richard Place of Urbana. Lieutenant Place, with the assistance of Master Sergeant John T. Walker, very capably handled the personnel details of S-1.

Captain Lawrence Nolte, of the Officer Reserve, was attached to the regiment for the Field Training period, and was assigned the duties of Plans and Training Officer. S-3 is assigned to the Michigan component of the regiment, and this is the first year the Illinois component has had the advantage of a Plans and Training Officer. Captain Nolte has been assigned to Troop E for instruction, during the armory drill period, and will continue his duties as P&TO.

Officers of the Medical Detachment are divided between two stations, Major Clyde D. Gulick, MC, and Captain S. P. McGilligan, DC, being located in Urbana, and Captain H. P. Macnamara, MC, and Captain A. E. Dickerson, VC, are located in Springfield. This arrangement gives the line units in both locations the advantage of the instruction of officers of the medical department.

The band of the regiment participated in all ceremonies of the regiment as a mounted unit, and won the plaudits of thousands at the military show conducted on the second Sunday of the camp period, by its colorful appearance while playing during its intricate mounted evolutions. Among the ceremonies held at camp was the impressive "Escort to the Standards" upon the receipt of the new regimental standards.

The regiment has entered upon its winter armory training schedule, and in spite of the fact that its units are widely scattered about the State, it is determined to show an improvement in 1939 over the excellent showing made in the 1938 field training period.

112th Cavalry—Dallas, Texas

COLONEL CLARENCE E. PARKER, *Commanding*

Headquarters and Staff: Colonel C. E. Parker, Commanding; Captain W. A. Johnson, S-1; Captain M. McIntire, S-2-3; Captain J. B. Dunlap, S-4; Lieutenant A. B. Wallace, Assistant S-1.

Headquarters Troop: Captain G. A. Brewer, 1st Lieut. G. S. Metcalf, 1st Lieut. T. R. Houghton, 2nd Lieut. E. K. Morse.

Machine Gun Troop: Captain L. A. Beecherl, 1st Lieut. R. N. Fenley, 1st Lieut. F. M. Cowman, 2nd Lieut. L. L. Leonard.

Medical Detachment: Major W. B. Lasater, Captain C. R. Williams, Captain H. L. Rice, Captain A. B. Kuttler, Captain F. C. Steinman.

1st Squadron: Major W. A. Cameron, 1st Lieut. W. M. Hill.

Troop A: Captain C. W. Newman, 2nd Lieut. J. H. Neel.

Troop B: Captain W. T. Starr, 1st Lieut. D. M. McMains, 2nd Lieut. W. R. Shaw.

2nd Squadron: Major A. S. Johnson, 2nd Lieut. M. L. Bass.

Troop E: Captain J. A. Mann, 1st Lieut. H. L. Phillips, 2nd Lieut. P. L. Hooper.

Troop F: Captain R. G. Phillips, 1st Lieut. M. E. Hood, 2nd Lieut. Q. R. Tipton.

Band: W. O. L. Harris.

With the lessons to be learned, from the regiment's participation in the Third Army maneuvers at Camp Bullis last August, as a basis, the Regimental Commander has prescribed a most ambitious program of Armory Training for the coming season, that will keep officers and enlisted men not only interested but on their toes to fulfill the requirements.

The enthusiasm and spirit displayed to date, by all troops of the regiment in carrying out this strenuous program, is most gratifying to the Regimental Commander.

The squad test that was conducted in the regiment, during the last Armory Training Period, produced such great results, that Colonel Parker has initiated a Platoon competition to be conducted during the Armory Training Period, 1938-1939.

The purpose of the test is to encourage attendance at drills, schools, and all troop formations; to test the proficiency in the training of the individuals and the general proficiency of the picked platoon from each troop in the 112th Cavalry.

The test will be conducted along the same lines as that for the Cavalry Leadership Test for Small Units in the Regular Cavalry, except that it will cover a period from October 16, 1938, to May 7, 1939.

The cash prize for the winning platoon, donated by officers of the regiment will be awarded as follows:

Leader of the winning platoon, \$25.00 cash or trophy as desired.

Sergeants of winning platoon \$25.00 each.

Corporals of winning platoon \$20.00 each.

Privates of winning platoon \$10.00 each.

In addition to the above cash prizes, Captain John B. Dunlap, Regimental S-4, will kindly award each member of the winning platoon a pin or coat button, appropriately engraved, to show that wearer was a member of the winning platoon 1938-39.

A firm believer that competitions do much to increase enthusiasm and proficiency during the Armory Training Period, Colonel Parker has also prescribed a squad test to be conducted within the Medical Detachment, 112th Cavalry, during the period October 1, 1938, to July 1, 1939, and an individual test to be conducted within the Band 112th Cavalry, during the same period. Suitable prizes will be awarded to the winners in both these competitions.

On October 1st and 2d, Troop B, Captain William T. Starr, Commanding, conducted a most instructive and interesting night march, problem and bivouac. The troop marched from stables at 7:00 PM, under assumed war conditions, on a mission of reconnaissance that required rapid execution under the cover of darkness. The return march from concealed bivouac was completed Sunday at 12 noon.

Captain Newman and Lieut. Neel, as members of the Dallas Polo team participated in the horse show and polo tournament recently held at Fort Bliss. The Dallas team although not winning the tournament gave a good account of itself due to the fine playing of the two 112th Cavalrymen.

Captain Royal G. Phillips, Commanding Troop F, is receiving congratulations from the regiment on his recent promotion to Captain in the Texas Rangers and this promotion is justly deserved. Captain Phillips has had an outstanding, envious record in the Rangers for many years. As one of his brother officers remarked "His record in the Rangers is almost as outstanding as his record in the National Guard."

At the Troop Inspections and demonstrations being conducted in Dallas, each month by the Regimental Instructor and Sergeant Instructor the following listed privates won first places for the month of October:

Headquarters Troop: Best turned out mounted trooper—Pvt. N. McGlathery. Best turned out dismounted trooper—Pvt. A. E. Stanley.

Machine Gun Troop: Best turned out mounted trooper—Pvt. 1st c. H. E. Koppe. Best turned out dismounted trooper—Pvt. W. D. Pilgram.

Troop A: Best turned out mounted trooper—Pvt. B. M. Ford. Best turned out dismounted trooper—Pvt. J. Smith.

Troop B: Best turned out mounted trooper—Pvt. B. A. Harr. Best turned out dismounted trooper—Pvt. J. E. Riley.

Troop E: Best turned out mounted trooper—Pvt. 1st c. G. E. Heitt. Best turned out dismounted trooper—Pvt. J. W. Denton.

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305th Cavalry—Philadelphia

COLONEL VINCENT A. CARROLL, *Commanding*

The first meeting of the 305th Cavalry Association was held at the First City Troop Armory on September 28th. Plans were discussed for the training season and the following association officers were elected:

Colonel William Innes Forbes, Honorary President.
Colonel Vincent A. Carroll, President.
Major May S. Easby, First Vice-President.
Captain Frederick Streicher, Second Vice-President.
1st Lieut. Samuel P. Naftzinger, Third Vice-President.
1st Lieut. Harry T. Rosenheim, Jr., Secretary.
2nd Lieut. Shaler Stidham, Treasurer.
1st Lieut. Forrest H. Riordan, Jr., Historian.

Major Edward A. Town, Executive Committee.

Captain John W. Watson, Executive Committee.

Due to the efforts of Captain Harold G. Lacy, editor of *The Stallion*, the first issue of that publication for the year made its appearance on the night of the meeting.

The Wednesday noon luncheons and conferences are being held at the Arcadia International Cafe and have been very well attended. To date there have been four interesting and informative conferences. Captain John W. Watson lectured on Russian Cavalry Marches during the World War, Captain Streicher discussed the present organization of the Cavalry Division, Captain James D. Morrow told of the German Cavalry Operations on the Eastern Front during the World War, and Captain Edward E. Young talked on Mobilization.

Wednesday evening conferences and equitation classes, held at the First City Troop Armory, have been resumed with fervor.

1st Lieut. Sam Naftzinger has been very enthusiastic over the establishment of a "rookie" school for C.M.T.C. trainees and members of the Cavalry Enlisted Reserve. Captain Fred Streicher and Jack Watson, aided by Lieut. Naftzinger have prepared a very interesting course of practical instruction for the 40 men who have enrolled.

Major Town with Lieutenants Stretch, Riordan, Hunter and Naftzinger, visited West Point on October 22nd. After witnessing a review of the cadets, they enjoyed watching the Army's first three teams walk over Boston University for a score of 40-0.

On Saturday, November 5th, twenty officers, led by Major May S. Easby, made a 15-mile tactical ride to the Whitmarsh Hunt Club where they had an excellent dinner followed by a good night's sleep. The following morning was spent in fighting a stiff delaying action.

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306th Cavalry—Baltimore, Maryland

COLONEL MATTHEW F. JAMES, *Commanding*

Under the guidance of the Senior Unit Instructor, Colonel H. W. Baird, and of the Unit Instructor, Second Squadron, Lieutenant Colonel J. L. Philips, the Inactive Duty program of the Regiment has started for another year. It is hoped that this will be one of the best years that we have ever had in so far as Army Extension Courses and attendance at conferences is concerned.

The Washington units held conferences on October 6th and 20th. The feature of the first conference was an interesting address by Lieutenant Colonel Robert W. Grow, Cavalry, on "Development of New Cavalry Material." At the second conference the speakers were Major Louis Martin, Cavalry, and Captain Harvey Gunderson, 462nd Armored Car Squadron. Major Martin spoke on "Trends and Missions of Mobile Forces" and Captain Gunderson's subject was "Mobilization."

The Equitation classes at Fort Myer, Va., began on Sunday morning, October 9th. Under the supervision

of Lieutenant Colonel Edward B. Harry and Major Edward A. Kane a number of the officers of the Regiment participated in a most enjoyable cross-country ride.

The pistol team has begun practice, and quite a number of officers are trying out for the team which will be composed of eight members.

On October 19th the Baltimore members of the Regiment had the pleasure of meeting our new Chief of Staff, Colonel Bruce Palmer. The subject of the conference was "Reconnaissance" and Colonel Palmer discussed the use of both Horse and Mechanized Cavalry. After listening to the splendid talk by Colonel Palmer, a recent arrival from Fort Knox, there was solid conviction that Horse Cavalry *is* an essential arm of the service.

Special Order No. 11, 306th Cavalry dated September 20, 1938, announced the new assignments of officers and enlisted men of the Regiment in accordance with the new tables of organization.

Special Order No. 56, 62nd Cavalry Division, assigned First Lieutenant Isadore A. Handler to the Regiment and the same order relieved the following: Captain Ellis O. Keller, First Lieutenant Joseph McG. Michaelson and Second Lieutenant Warren A. Minton.

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307th Cavalry—Richmond, Virginia

LIEUTENANT COLONEL R. B. H. BEGG, Cavalry-Reserve,
Commanding

The reorganization of the regiment, recently effected, shows a pretty well balanced outfit, with only a Colonel missing—three troop commanders are Riley graduates, with another, Captain Blue, entertaining the same aspiration.

At a recent conference, Captain Mann held the floor and presented the lowdown, official and personal, on the new semi-automatic rifle, and armored cars in general and particular. His first-hand information, coming from our recent Cavalry School graduate who got no U's at all during the course, proved interesting and timely. We found that his Riley text on the former, marked "Restricted," was not as informative as articles appearing later in several service journals, which is none of our business.

We believe that our sand table, presented by Lieutenant Colonel George C. Graeter, Engr-Res., is going to be of great assistance in our troop leading problems. It has been found that map reading, easy for some people, is a puzzle to others; that ground forms are recognizable only to those who have pored long hours on those deadly map problems. The table, likewise, avoids the use of that tiresome Gettysburg map, which, to our lads of Confederate descent, starts off with a recognizable handicap.

Several of our officers, whose business in the summer time has prevented them from going to camp, has signified their intention of qualifying for and taking two-week tours during the winter at Fort Myer with our old friends the Brave Rifles.

308th Cavalry—Pittsburgh, Pennsylvania

COLONEL GEORGE H. CHERRINGTON, *Commanding*

Since returning from camp the regiment has been more active than is usual in the fall. The excellent weather conditions, which have existed for the past two months, have drawn to the training center many officers who usually do not get out. On several Sundays lately our fourteen horses have been insufficient to meet the demand.

Many miles of new trails have been broken through the woods and across country and many old trails have been cleared. After instruction on the drill field, it is customary to ride over several miles of these trails to top off the routine work and leave with the officers a desire for more and longer mounted periods.

The conferences held so far have been well attended and much interest is being displayed in subjects to be scheduled for the second conference period beginning in January. Colonel Palmer's lecture on Horse and Mechanized Cavalry, to be given on November 8th, has aroused great interest, not only among the officers of the regiment, but also among all the military personnel in this area, including Regular Army, National Guard, Organized Reserves, and R.O.T.C. The attendance promises to be so large that it was considered wise to secure one of the large auditoriums at Carnegie Institute of Technology to assure sufficient accommodations.

A regimental "get-together" and dance was held at the club house at the training center on the Saturday before Halloween. All were invited to come dressed in juvenile attire and many and hearty were the guffaws occasioned by some of the costumes. Dignity was entirely absent and, as a result, everyone had a "swell" time. Almost the entire local group of officers, their wives or best girls and many friends turned out for the party.

The regular fall trapshooting season opened on Sunday, September 25th, and shoots have been held each Sunday since. Great improvement has been shown in the marksmanship of the regular shooters. Those who had never done this type of shooting before the traps were installed in 1935 have become excellent shots and those who had had experience have shown equal improvement. Before this year a score of eighteen or nineteen was considered "tops," but this year several have "killed" as many as twenty-two and now have Captain Perritt's recent twenty-four to shoot at.

The regiment welcomes back Captain Ellis O. Keller, who has been absent in Baltimore for several years.

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HQ 862d Field Artillery (H)—Towson, Md.

MAJOR FRANK GOSNELL, *Commanding*

All officers, qualified for active duty, were ordered to Fort Hoyle, Md., for the two-week summer training period commencing August 7, 1938, and, with one exception, all reported for duty. Training with us were officers from the 28th Field Artillery, 370th Field Artillery, and the 343rd

Ammunition Train. With the usual 100% coopération from the 6th Field Artillery, a most instructive and pleasant tour of duty was had, as emphasis was put on Battery work and Service practice.

First Squadron, 311th Cavalry— San Antonio, Texas

MAJOR VERNON C. HASTINGS, *Commanding*

Officers of the 311th Cavalry residing in and near San Antonio have a very busy schedule for the winter of 1938-1939. Troop Schools are held twice each month, pistol practice takes place every Saturday afternoon, and riding classes are conducted every Sunday morning.

The Squadron is very fortunate in being located in San Antonio, the Headquarters for the 156th Cavalry Brigade, so that at all of our troop schools and riding classes we have with us our Unit Instructor, Major James B. Taylor, and the Brigade Instructor, Colonel Arthur E. Wilbourn.

We have another advantage in that through one of our brother officers, 1st Lieutenant D. W. Peacock, we have the use of the cavalry mounts of the Peacock Military Academy for our Sunday morning riding classes. These Sunday morning rides are very popular, as many officers of the other branches of the service are regular members of the class. The first hour is devoted to equitation under the instruction of Major Taylor, and the second hour consists of a controlled cross-country ride. Wide stretches of open country adjacent to the Academy, with woods, fields, streams and little-traveled roads, offer unusual opportunity for enjoyable horseback riding. San Antonio's mild weather makes it possible for us to ride throughout the winter months.

Another activity of interest is the "San Antonio Chapter of the 311th Cavalry Officers Club," which held its first monthly meeting in October. Major Vernon C. Hastings, our Squadron Commander, was elected the club's first president, and 1st Lieutenant Donald C. Sandison is secretary and treasurer. The purpose of the club is to promote the regimental morale by developing among its members a closer social relationship, thereby fostering *esprit de corps*. The membership consists of all officers of the 311th Cavalry residing in or near San Antonio, and other officers who participate in the activities of the organization. The club will meet for a dinner the fourth Monday of each month at one of the local hotels or popular eating places. A short program of interest to cavalry officers, such as lectures on cavalry subjects and moving pictures of cavalry activities furnished by the U. S. Signal Corps, will be a feature of each gathering.

New Mexico Military Institute

The New Mexico Military Institute Horse Show team stole the show at the Eastern New Mexico State Fair, October 5, 1938, with a fine exhibition of horsemanship, placing in every event, and together with other Institute

personnel, making a clean sweep of several events.

First place in Gentlemen's Jumping Competition was taken by Cadet Captain O'Connor, second place by Cadet Captain McClure, third place by Technical Sergeant W. L. Robinson [Enl. Det. D.E.M.L. (ROTC)], and fourth place by Lieutenant Winburn, Cav-Res.

In the Military Jumping Class, for cadets only, Captain McClure was awarded first, Cadet Lieutenant Lewis second, Cadet Captain O'Connor third, and Cadet Lieutenant Goss fourth.

Other events placed in by cadets included Pair Jumping with Cadet Captain Carroll and Cadet Lieutenant Lewis winning first and Stake Racing with Cadet Sergeant Evans first, Cadet Sergeant Thompson second, and Cadet Corporal Greer third.

Prizes for all events included Cup, Ribbon and Purse for first, Ribbon and Purse for second, Ribbon and Purse for third, and Ribbon only for fourth.

The Rifle Marksmanship Gallery Competition, an annual event at New Mexico Military Institute, is now being conducted. This event is between the First Year Basic Students, most of whom have never fired before. The scores are recorded by troop and the troop with the highest average is awarded the New Mexico Military Institute Gallery Rifle Trophy. In addition to this award the student with the highest individual average also receives an award.

The New Mexico Military Institute Rifle Team has at present 120 members with more applications being made daily. Many challenges have been sent out and replies of acceptance are being received daily. The first match will be fired on or about November 12, 1938.

During the past three years the following additions have been made at the New Mexico Military Institute:

New stables, complete with offices, shops, saddle rooms, forage compartments, tool rooms, storage rooms, electric fly traps, containing 150 box stalls have been built at a cost of approximately \$55,000.00.

New corrals with running water and sufficient grazing to vary and supplement the ration have been fenced.

A new target rang containing firing points up to 1,000 yards has been built at a cost of \$7,000.00.

One thousand acres of additional land suitable for combat training has been purchased during the past year making a valuable addition to the seventy-five acre campus and 123 acre drill grounds heretofore used.

A new grass parade ground is now in process of grading and planting.

\$21,000.00 has just been set aside for the beautification and landscaping of grounds around the new stables, and work has begun on this project.

The Cadet Polo Team entered the Southwestern-International Polo Tournament held at Fort Bliss, Texas, winning their first game against El Valle Polo Club from El Paso, Texas, by a score of 12-4. In the semi-finals the Cadet Team was defeated by the 8th Cavalry, score 6-7.

A series of four games with Oklahoma Military Academy began on October 27-30, two of the games to be



NEW MEXICO MILITARY INSTITUTE AT ROSWELL, NEW MEXICO

Front view showing driveway and entrance. Front sections have office, saddle rooms, saddler shop, sick bay, and guard rooms. Side and center sections are box stalls, above stalls storage place for forage. Rear section: blacksmith shop, grainery, store rooms.

played this fall and the other two to be played next spring. The Cadet Team won the first two games by scores of 10-2 and 7-3 respectively.

Cadet Corporal Edwin D. Selby, son of Major John E. Selby, Cavalry, P.M.S.&T., attended the C.M.T.C.

Cavalry Camp at Fort Bliss, Texas, July 1, to July 30, 1938, and was awarded the medal for the outstanding Red student of the Camp. In addition to this he won the best all around athlete award for the entire C.M.T.C. Camp at Fort Bliss.

Soldier's Medal

On Thursday, November 10, 1938, at 3:30 PM, Captain John L. Ryan, Jr., 13th Cavalry, was decorated with the Soldier's Medal which is awarded for "acts of heroism not in actual contact with the enemy." Brigadier General Adna R. Chaffee, Commanding Fort Knox, Kentucky, and the Seventh Cavalry Brigade (Mechanized) made the presentation at a Review at Fort Knox in which the entire command participated.

The coveted Soldier's Medal was awarded to Captain Ryan by direction of The President, with the following citation:

John L. Ryan, Jr., Captain, 13th Cavalry, United States Army. For heroism displayed on May 23, 1938, at Nashville, Tennessee. Upon seeing a fully loaded and driver-

less commercial gasoline truck moving rapidly down grade and heading toward a group of spectators, including children, and toward several government trucks lined up in the road, captain Ryan, with utter disregard of his own safety, jumped onto the running board and, although unable to make his way into the driver's cab, brought the truck under partial control from his position on the running board. By his prompt action Captain Ryan was able to steer the truck away from the nearer spectators, children, and vehicles, and thereby avoided the probability of a fatal accident. This, however, was not accomplished until Captain Ryan, just prior to leaping to safety from the careening vehicle, with great danger to himself, had guided the truck off the road where it crashed into a clump of trees.

Roster of Regular Army Cavalry Officers

Office, Chief of Cavalry, Washington D. C.

Major General
John K. Herr

Colonel
Guy Kent

Lieutenant Colonels

Karl S. Bradford
Willis D. Crittenberger
Robert W. Grow

Henry J. M. Smith
Frank L. Whittaker

Majors

Gilbert X. Cheves

Charles S. Kilburn

The Cavalry Board, Fort Riley, Kansas

Colonel
Dorsey R. Rodney

Majors

Charles F. Houghton

Richard E. Tallant

Captains

Andrew E. Forsyth

Elmer V. Stansbury

Commandant, Staff and Faculty, The Cavalry School, Fort Riley, Kansas

Brigadier General
Guy V. Henry

Colonel
Clarence Lininger

Lieutenant Colonels

John B. Bohn

Harold C. Fellows

Majors

John T. Cole
Eugene A. Regnier

Edwin E. Schwien

Captains

Paul G. Kendall
Carl W. A. Raguse
Winfield C. Scott

Hayden A. Sears
Jesse B. Wells
Willard G. Wyman

Staff and Faculty, The Infantry School, Fort Benning, Georgia

Major
Thomas W. Herren

Staff and Faculty, The Field Artillery School, Fort Sill, Oklahoma

Major
Rinaldo L. Coe

Staff and Faculty, The Air Corps Tactical School, Maxwell Field, Alabama

Lieutenant Colonel
John C. Mullenix

Staff and Faculty, The Engineer School, Fort Belvoir, Virginia

Major
Alexander B. MacNabb

Staff and Faculty, The Coast Artillery School, Fort Monroe, Virginia

Major
Otto B. Trigg

Staff and Faculty, Command and General Staff School, Fort Leavenworth, Kansas

Colonel
Kinzie B. Edmunds

Lieutenant Colonels

William C. Chase
John A. Considine
Paul R. Davison
Frederick Gilbreath

Harold C. Mandell
Raymond E. McQuillin
Arthur P. Thayer
John B. Thompson

Majors

Wayland B. Augur
Harold deB. Bruck
Frederick R. Lafferty
Roscoe S. Parker

Rufus S. Ramey
Albert C. Smith
Lucian K. Truscott, Jr.

Captain
Henry M. Zeller

Staff and Faculty, Army War College, Washington, D. C.

William W. Gordon

Colonels

George B. Hunter

Lieutenant Colonel
James W. Barnett

Historical Section, Army War College, Washington, D. C.

Lieutenant Colonel
James K. Cockrell

War Department General Staff, Washington, D. C.

Lieutenant Colonels

Roderick R. Allen
William M. Grimes
William Nalle
Robert W. Strong

Alexander D. Surles
William E. Shipp
Harold M. Rayner

Majors

Walton W. Cox
Ernest N. Harmon

Paul McD. Robinett

General Staff with Troops

Colonels

Joseph A. Baer, Baltimore, Maryland
William C. Christy, Fort Hayes, Ohio
Llewellyn W. Oliver, Atlanta, Georgia
Kerr T. Riggs, Panama, C. Z.

Lieutenant Colonels

Harry D. Chamberlin, Fort Bliss, Texas
Calvin DeWitt, Jr., Fort Bliss, Texas
Henry L. Flynn, Baltimore, Maryland
Edward C. McGuire, San Francisco, California
John Millikin, Boston, Massachusetts

Majors

David H. Blakelock, Atlanta, Georgia
James T. Duke, Fort Bliss, Texas
John W. McDonald, Hawaii
James M. Shelton, Omaha, Nebraska

Duty with General Staff

Lieutenant Colonel

Beverly H. Coiner, Fort Sam Houston, Texas

Majors

William T. Hamilton, Fort Sam Houston, Texas
Herbert A. Meyers, Atlanta, Georgia

Carl H. Strong, Governors Island, New York

Military Attaches

Majors

Samuel A. Greenwell, London, England
George Huthstainer, Riga, Latvia

Aides

Captains

William A. Bugher, Fort Riley, Kansas
Lawrence R. Dewey, Brooklyn, New York
John H. Stadler, Jr., Vancouver Barracks, Washington
Gustavus W. West, Fort Hayes, Ohio

First Lieutenants

John R. Pugh, Fort Myer, Virginia
Harold L. Richey, Fort Benjamin Harrison, Indiana

Second Lieutenant

Edward W. Williams, Fort McKinley, P. I.

Duty With Troops

Headquarters, First Cavalry Division, Fort Bliss, Texas

Brigadier General
Kenyon A. Joyce

Lieutenant Colonel
Edgar W. Taulbee

Captain
Aladin J. Hart

Headquarters, Special Troops, Fort Bliss, Texas

Colonel
Stephen W. Winfree

Major
Harry H. Baird

Captains

Augustine D. Dugan

Charles G. Meehan

Second Lieutenant
Howell M. Estes, Jr.

First Armored Car Squadron, Fort Bliss, Texas

Captain
Claude W. Feagin

First Lieutenants

Benjamin W. Heckemeyer

Cesar F. Fiore

First Cavalry Brigade, Fort Clark, Texas

Lieutenant Colonel
Oliver I. Holman

Majors

Gordon J. F. Heron
James C. Short

Roland A. Asker

Captains

Henry C. Mewshaw

William H. Nutter

Second Cavalry Brigade, Fort Bliss, Texas

Brigadier General
Robert C. Richardson, Jr.

Lieutenant Colonel
Pearson Menoher

Captains

Verne D. Mudge

Halley G. Maddox

First Lieutenant
Vernon P. Mock

Seventh Cavalry Brigade (Mechanized), Fort Knox, Kentucky

Brigadier General
Adna R. Chaffee

Captain
Rufus L. Land

First Cavalry (Mechanized), Fort Knox, Kentucky

Colonel
Henry W. Baird

Lieutenant Colonels

John F. Davis
Kenna G. Eastham

Jack W. Heard

Majors

Burton C. Andrus
Stephen Boon, Jr.
Stanton Higgins
Nelson M. Imboden

Marcus E. Jones
Leslie F. Lawrence
Charles H. Unger

Captains

John L. Ballantyne
William L. Barriger
Wendell Blanchard
Thos. J. Brennan, Jr.
Charles H. Bryan
Daniel P. Buckland
Douglas Cameron
Harold Engerud

Richard B. Evans
Clayton J. Mansfield
Clyde Massey
John K. Sells
Francis P. Tompkins
Grant A. Williams
Richard T. Willson

First Lieutenants

Phillip H. Bethune
Edwin M. Cahill
Charles G. Dodge

Wayne J. Dunn
Charles E. Leydecker
Donald M. Schorr

Second Cavalry, Fort Riley, Kansas

Colonel
Arthur W. Holderness

Lieutenant Colonels

Thoburn K. Brown
Frank G. Ringland

Cyrus J. Wilder

Majors

Frank H. Barnhart
James A. Killian
Darrow Menoher

Perry E. Taylor
Guy D. Thompson

Captains

Roland A. Browne
Edwin P. Crandell
Andrew A. Frierson
Leslie M. Grener
John B. Reybold

John H. Riepe
Theodore S. Riggs
Virgil F. Shaw
John T. Ward

First Lieutenants

William G. Bartlett
F. Clay Bridgewater
James E. Glattly
Geo. R. Grunert

Albert A. Matyas
Whitely Miller
Lawrence E. Schlanser

Second Lieutenants

Henry L. Crouch, Jr.
Robert C. Erlenbusch
Edward F. Gillivan

Allen D. Hulse
Wilbur C. Strand

Third Cavalry (Less First Squadron), Fort Myer, Virginia

Brigadier General
Jonathan M. Wainwright

Colonel
George S. Patton, Jr.

Lieutenant Colonel
Adolphus W. Roffe

Majors

Renn Lawrence

George H. Millholland

Captains

Leslie D. Carter
John H. Collier
Thomas Q. Donaldson, Jr.
John L. Hines, Jr.

Henri A. Luebberrmann
Lawrence G. Smith
Thomas J. H. Trapnell

First Lieutenants

Loren F. Cole
Brainerd S. Cook
Charles B. McClelland, Jr.

Jules V. Richardson
James B. Quill

First Squadron, Third Cavalry, Fort Ethan Allen, Vermont**Lieutenant Colonels**

Thomas H. Rees, Jr.

Samuel V. Constant

Major

Herbert E. Watkins

Captains

Raymond M. Barton
Cornelius C. Jadwin

James K. Mitchell
Theodore C. Wenzlaff

First Lieutenant

Edward W. Sawyer

Second Lieutenants

Tracy B. Harrington
Robert E. McCabe

William A. Sussmann

Fourth Cavalry, Fort Meade, South Dakota**Colonel**

Robert C. Rodgers

Lieutenant Colonel

John B. Coulter

Majors

Charles R. Chase
Harold G. Holt
Wharton G. Ingram

Arthur T. Lacey
Philip R. Upton

Captains

Martin A. Fennell
Mitchell A. Giddens
Henry C. Hine, Jr.
Walter F. Jennings

Louis B. Rapp
Thomas Robinson
Donald W. Sawtelle
Frank T. Turner

First Lieutenants

Norman A. Loeb

Second Lieutenants

Charles C. W. Allan
William W. Culp

Edward C. Dunn
Perry E. Conant

Robert J. Quinn, Jr.
Neil D. Van Sickle

Fifth Cavalry, Fort Clark, Texas**Colonel**

Cuthbert P. Stearns

Lieutenant Colonel

John A. Robenson

Majors

Roy E. Blount
Floyd M. Hyndman

George D. Wiltshire

Captains

Clovis E. Byers
Murray B. Crandall
Raymond W. Curtis
Edward J. Doyle

Alan L. Fulton
Clifford I. Hunn
Hubert W. Ketchum
Harry W. Miller

First Lieutenant

Charles F. Harrison

Second Lieutenants

John J. Carusone
James J. Cosgrove
Kelton S. Davis
Carl L. Lindquist

George H. Minor
Richard E. Nelson
Edwin A. Russell, Jr.
Leonard C. Shea

Sixth Cavalry, Fort Oglethorpe, Georgia**Colonel**

George Dillman

Lieutenant Colonels

Norman E. Fiske

John A. Weeks

Majors

William K. Harrison, Jr.
Hans E. Kloepper
Fred W. Koester

Clyde Pickett
Thomas D. Wadleton

Captains

Joseph K. Baker
Logan C. Berty
Edwin M. Burnett
Hugh F. T. Hoffman

John O'D. Murtaugh
H. Jordan Theis
Thomas T. Thornburgh
William P. Withers

First Lieutenants

Charles J. Hoy
Paul M. Jones

Anthony F. Kleitz, Jr.

Second Lieutenants

Stephen W. Holderness
Frank E. Glace, Jr.
Elwin T. Knight
Ned T. Norris

Francis McD. Oliver, Jr.
William R. Prince
Gailon M. McHaney
Thomas L. McCrary

Seventh Cavalry, Fort Bliss, Texas

Colonel
William W. West

Lieutenant Colonels
Benjamin F. Hoge
Harding Polk

Majors
Edmund M. Barnum
Percy S. Haydon
Ray T. Maddocks

Captains
Charles P. Bixel
Clarence C. Clendennen
John L. De Pew
Robert Edwards
Walter E. Finnegan

First Lieutenants
Andrew J. Boyle
John S. Growdon

Second Lieutenants
Creighton W. Abrams, Jr.
Walter S. Gray
Jack L. Grubb

Colonel
Otto Wagner

Majors
Edward F. Shaifer
Christopher C. Strawn
Raymond E. S. Williamson

Captains
Eugene C. Johnston
Christian Knudsen
Laurence K. Ladue
Charles S. Miller
Loren D. Pegg

First Lieutenants
Francis J. Murdoch

Second Lieutenants
Hilwart S. Streeter
Albert B. Turner, Jr.
Arthur H. Wilson, Jr.

Eighth Cavalry, Fort Bliss, Texas

Colonel
Innis P. Swift

Lieutenant Colonel
Joseph P. Aleshire

Majors
William T. Bauskett
William B. Bradford
Carl B. Byrd

Captains
Rogers A. Gardner
Henry I. Hodes
Ralph M. Neal
Thomas F. Sheehan

First Lieutenants
Henry T. Cherry, Jr.

Second Lieutenants
Roy W. Cole, Jr.
Robert E. O'Brien, Jr.
Don R. Ostrander
Bruce Palmer, Jr.

Colonel
Horace W. Forster
Clinton A. Pierce

Captains
Francis L. Ready
William J. Reardon
Charles H. Valentine

First Lieutenants
William V. Martz

Second Lieutenants
John C. F. Tillson, III
Eugene J. Sweeney
Henry B. Wilson

Ninth Cavalry, Fort Riley, Kansas

Lieutenant Colonels
Terry de la M. Allen
Charles B. Hazeltine

Majors
Frank A. Allen, Jr.
Harold E. Eastwood
George I. Smith

Captains
Clarence W. Bennett
George C. Clausen
Royce A. Drake
William H. Hunter
Oscar W. Koch
Morris H. Marcus
Paul M. Martin

First Lieutenants
Bogardus S. Cairns
Edwin H. J. Carns
James O. Curtis, Jr.
Paul D. Harkins

Lieutenant Colonels
Thomas F. Limbocker
John P. Wheeler

Majors
Edwin M. Sumner
Isaac G. Walker
Vennard Wilson

Captains
Milo H. Matteson
James H. Phillips
Carl D. Silverthorne
John H. Stodter
Erle F. Thomson
John W. Wofford

First Lieutenants
Robert W. Porter, Jr.
Scott M. Sanford
Franklin F. Wing, Jr.
William H. S. Wright

Tenth Cavalry (Less Second Squadron and Machine Gun Troops), Fort Leavenworth, Kansas

Lieutenant Colonel
William H. W. Youngs

Major
William N. Todd, Jr.

Captains
Frederic de L. Comfort
Robert G. Love
Zachary W. Moores

Colonel
Raymond D. Palmer
Charles H. Reed

Tenth Cavalry (Machine Gun Troops), Fort Myer, Virginia

Captains
Basil L. Riggs

Colonel
Hugh B. Waddell

Tenth Cavalry (Second Division), West Point, New York

Major
Marion Carson

Captains
Clarence K. Darling
Peter C. Hains, III

First Lieutenant
O'Neil K. Kane

Colonel
Harry W. Johnson

Eleventh Cavalry, Presidio of Monterey, California

Colonel
Homer M. Groninger

Lieutenant Colonels
James E. Slack

Majors
Frank C. De Langton
Charles H. Gerhardt

Captains
Alexander George
Joseph M. Glasgow
Thomas L. Harrold
Lyman L. Judge
Philip B. Shotwell

First Lieutenant
Thomas D. Gillis

Second Lieutenants
Thomas W. Chandler
Meyer A. Edwards, Jr.
Robert G. Fergusson
Cecil Himes

Colonel
Lester A. Sprinkle

Majors
Gustav G. Guenther
Otis Porter

Captains
Marcellus L. Stockton, Jr.
Egon R. Tausch
Frank J. Thompson
Frank G. Trew

First Lieutenant
Donald W. Thackeray
Wilfred H. Tetley
Charles W. Walson

Twelfth Cavalry (Less Second Squadron), Fort Brown, Texas

Colonel
Donald A. Robinson

Lieutenant Colonel
Wilson T. Bals

Majors
Harry A. Buckley
Jay K. Colwell
Heywood S. Dodd

Captains
Otto R. Stillinger
John R. Thornton

First Lieutenant
Ewing C. Johnson

Second Lieutenants
Samuel M. Hogan
McPherson LeMoyné
John B. Nance

Colonel
Olin C. Newell
Benjamin A. Thomas

Captains
James H. Walker
Joseph M. Williams

First Lieutenant
Edward C. D. Scherrer
Alexander D. Surles, Jr.

Twelfth Cavalry (Second Squadron), Fort Ringgold, Texas

Lieutenant Colonel
Francis C. V. Crowley

Majors
McFarland Cockrill

Captains
Charles V. Bromley, Jr.
Frederick W. Drury

First Lieutenant
Edgar J. Treacy, Jr.

Second Lieutenants
Edward D. Mohlere

Colonel
Herbert L. Jackson

Captains
John L. Hitchings

First Lieutenant
Paul W. Scheidecker

Thirteenth Cavalry, Fort Knox, Kentucky

Colonel
Charles L. Scott

Lieutenant Colonels
Clarence C. Benson
Geoffrey Keyes

Majors
Claude O. Burch
Hugh J. Fitzgerald
James V. Gagne
Charles R. Johnson, Jr.

Captains
George P. Berilla, Jr.
John M. Bethel
John H. Claybrook, Jr.
William A. Fuller
George B. Hudson
Malcolm D. Jones, Jr.

First Lieutenants
George W. Coolidge
Gerald C. Cowan
William B. Fraser

Second Lieutenant
Roberts S. Demitz

Colonel
Ralph I. Sasse

Majors
Bertrand Morrow
Redding F. Perry
Mordaunt V. Turner

Captains
Kevin O'Shea
Frederick R. Pitts
George W. Read, Jr.
John L. Ryan, Jr.
Claude A. Thorp
David A. Watt, Jr.

First Lieutenants
Jesse M. Hawkins, Jr.
Norman K. Markle, Jr.
Jack W. Turner

Fourteenth Cavalry (Less First Squadron), Fort Des Moines, Iowa

Colonel
John C. Pegram

Lieutenant Colonel
Terrill E. Price

Majors
Howard A. Boone
Rhey T. Hollett

Colonel
George A. Moore
Vernon L. Padgett

Captains
Charles P. Amazeen
Frank O. Dewey
Harry D. Eckert

Thomas J. Randolph
Charles A. Sheldon
Prentice E. Yeomans

First Lieutenants
James B. Corbett
John J. Davis

Ralph S. Harper

Second Lieutenants
Donald P. Christensen
Russell V. D. Janzan

Carl L. Rickenbaugh

Fourteenth Cavalry (First Squadron), Fort Sheridan, Illinois

Lieutenant Colonel
Wilfrid M. Blunt

Majors
Paul H. Morris

Royden Williamson

Captains
Donald H. Galloway
Cary B. Hutchinson

Henry S. Jernigan
Willard A. Holbrook, Jr.

First Lieutenants
William E. Chandler

Robert W. Rayburn

Second Lieutenants
Leland W. Cramer

Walter G. Gleye

Twenty-sixth Cavalry (P.S.), Fort Stotsenburg, P. I.

Colonel
Clarence A. Dougherty

Lieutenant Colonels
Walter E. Buchly
James R. Finley

John T. Pierce

Majors
Jacob A. Blankenship
Philip C. Clayton
William T. Haldeman

Donald C. Hawley
John D. Hood
Paul J. Matte

Captains
Wallace H. Barnes
William J. Bradley
Clyde A. Burcham
Walter Burnside
Paul A. Disney
August W. Farwick
Harold M. Forde
William O'C. Heacock

James L. Hathaway
Henry L. Kinnison, Jr.
Donald H. Nelson
Paul A. Ridge
Garnett H. Wilson
Norman M. Winn
Eustaquio S. Bacig (P.S.)
Juan S. Moran (P.S.)

First Lieutenants
Robert E. Arnette, Jr.
James D. Alger
Robert H. Bayne
Ralph E. Haines, Jr.
Hamilton H. Howze
John J. Lappage

Cornelius A. Lichirie
John F. Rhoades
Thomas F. Taylor
Charles P. Walker
Hugh W. Stevenson

United States Military Academy, West Point, New York

Lieutenant Colonel
Joseph M. Tully

Captains
J. Paul Breden
Woodbury M. Burgess
Eugene L. Harrison
Alexander M. Miller, III

Ronald M. Shaw
Henry E. Westphalinger
William H. Wood

First Lieutenants
Frank H. Britton
Albert E. Harris
John L. Inskeep
George R. Mather
Joseph H. O'Malley

Chandler P. Robbins, Jr.
Glenn F. Rogers
Karl L. Scherer
John K. Waters

Students, Cavalry School, Fort Riley, Advanced Equitation Course

Captain
Thomas F. Van Natta, III

First Lieutenants
David V. Adamson
Joseph E. Bastion, Jr.
James C. Blanning
Henry W. Candler
William F. Damon, Jr.
Marshall W. Frame
William H. Greear

Joseph F. Haskell
Frank S. Henry
Charles M. Iseley
Matthew W. Kane
James H. Polk
David Wagstaff, Jr.
Sherburne Whipple, Jr.

Regular Course

First Lieutenants
Frederic W. Barnes
Joseph A. Cleary
John W. Darrah, Jr.
John F. Franklin, Jr.
Robert W. Fuller, III
Brendan McK. Greeley
Perry B. Griffith
Karl T. Gould
David L. Hollingsworth
Theodore F. Hurt, Jr.
Dana W. Johnston, Jr.

Harry E. Lardin
Joseph E. Ranck
Richard A. Smith
James W. Snee
Thomas R. Starratt
Daniel E. Still
Graves C. Teller
William S. Van Nostrand
Donald O. Vars
Carl D. Womack

Students, The Command and General Staff School, Fort Leavenworth, Kansas

Majors
Carl J. Dockler
Murray H. Ellis
Edward M. Fickett
John A. Hettinger

John C. Macdonald
James S. Rodwell
Carl J. Rohsenberger
Candler A. Wilkinson

Captains
William S. Biddle
Edwin C. Greiner
Harrison H. D. Heiberg
Robert L. Howze, Jr.
Charles H. Noble

Gordon B. Rogers
Isaac D. White
John P. Willey
Wesley W. Yale

Students, The Army War College, Washington, D. C.

Lieutenant Colonels
Robert E. Carmody
Oliver L. Haines

Cornelius M. Daly

Majors
Erle F. Cress

John C. Daly

Captains
George A. Rehm
Ira F. Swift

Samuel P. Walker, Jr.

Students, The Army Industrial College, Washington, D. C.

Majors
Herbert L. Earnest

Louis LeR. Martin

Student, The Infantry School, Fort Benning, Georgia

First Lieutenant
Harry J. Fleege

Student, The Air Corps Tactical School, Maxwell Field, Alabama

Captain
Gilman C. Mudgett

Student, The Signal School, Fort Monmouth, New Jersey

First Lieutenant
Kelso G. Clow

Language Students — Japan

Captain
C. Stanton Babcock

First Lieutenants
Frank D. Merrill

Eric H. F. Svensson, Jr.

Language Student — China

First Lieutenant
Edward J. McNally

Student, Columbia University, New York, New York

Captain
Joseph A. Michela

Duty with the Organized Reserves

Colonels
N. Butler Briscoe, Louisville, Kentucky
Robert Blaine, Chattanooga, Tennessee
Hugh H. Broadhurst, Kansas City, Missouri
John K. Brown, New York, N. Y.
Richard E. Cummins, Boston, Massachusetts
Oscar Foley, Tacoma, Washington
Francis W. Glover, Charleston, S. C.
John B. Johnson, Chicago, Illinois
Joseph C. King, Philadelphia, Pennsylvania
Isaac S. Martin, Chicago, Illinois
Carl H. Muller, St. Louis, Missouri
Bruce Palmer, Towson, Maryland
Ralph M. Parker, Detroit, Michigan
Emil P. Pierson, New Orleans, Louisiana
Selwyn D. Smith, Philadelphia, Pennsylvania
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